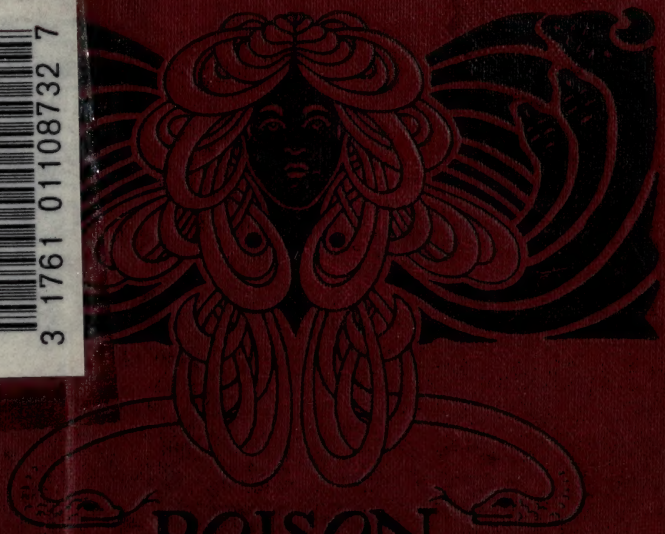
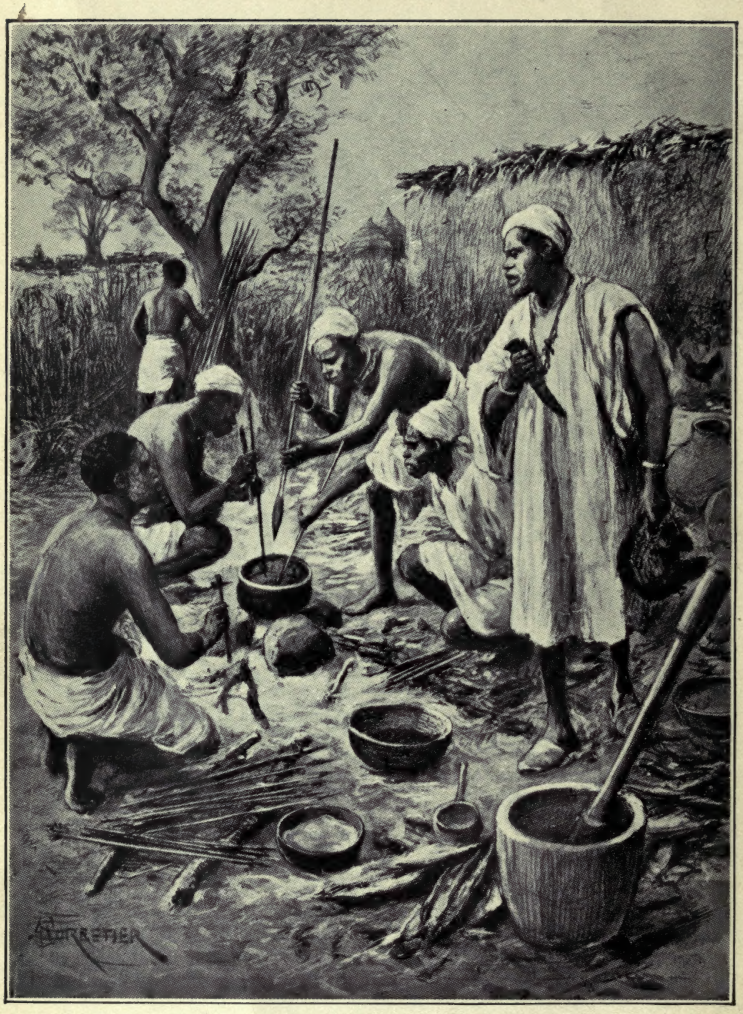


POISON MYSTERIES IN HISTORY ROMANCE AND CRIME

BY C·J·S·THOMPSON·M·B·E

POISON MYSTERIES
IN
HISTORY, ROMANCE AND CRIME



NATIVES OF THE FRENCH SUDAN, SOUTH OF THE NIGER, PREPARING THEIR ARROW POISON AND DIPPING THEIR WEAPONS.

(*From a drawing by A. Forestier.*)

Reproduced by kind permission of the proprietors of the *Illustrated London News.*

[*Frontispiece.*

POISON MYSTERIES IN HISTORY, ROMANCE AND CRIME

BY

C. J. S. THOMPSON, M.B.E.

Author of "The History and Romance of Alchemy and Pharmacy," etc., etc.

LONDON:
THE SCIENTIFIC PRESS, LTD.
28 & 29 SOUTHAMPTON STREET
STRAND, W.C.2.
1923

TO

SIR WILLIAM H. WILLCOX,

K.C.I.E., C.B., C.M.G., M.D., F.R.C.P. Lond.

As a slight appreciation of the eminent
services he has rendered to
Toxicology and
Medicine.

CONTENTS

PART I

POISONS IN HISTORY AND ROMANCE

Part II

POISON MYSTERIES

LIST OF ILLUSTRATIONS

PART I

POISONS IN HISTORY AND ROMANCE

CHAPTER I

POISONS USED BY ANCIENT AND PRIMITIVE RACES

POISONS, those silent weapons capable of destroying life mysteriously, secretly and without violence, have ever had a peculiar fascination for mankind. They have played so large a part in history at various periods, in romance as well as in crime, that the subject is one which claims the attention of every student of human nature.

A poison may be generally described as any substance which, in a small quantity, when introduced into or absorbed by a living organism, destroys life by rapid action. In another sense a substance may be termed a poison that has a cumulative effect if administered for a length of time so that it ends fatally. Substances of this description were called venim, venyn, venum or bane in the Middle Ages, and also termed " slow poisons."

It is probable that many substances which had the effect of destroying life were observed and used by primitive man from a period of remote antiquity. When injured in a tribal battle, by perhaps a flint arrow-head or stone axe, he no doubt sought for something to revenge himself on his enemy. In his search for curative substances he also found noxious ones, which produced unpleasant effects when applied to the point of a weapon destined to enter the internal economy of an opponent. He doubtless observed that the arrow-head and spear on which the blood of former victims had dried caused wounds which often proved fatal, owing to the action of what we now term septic poisons. This may have led him to experiment with the juices of plants till he discovered something of a more deadly character. The observations of primitive man as to the poisonous effects of plants on animal life is evident from some of the names which he gave to them

in early times. Instances of these are perpetuated in cowbane (the water hemlock), which often has a fatal effect on cattle ; sowbane, so called, says Parkinson in his Herbal, as it was observed to kill swine ; wolf's bane, leopard's bane, henbane, and many others which might be mentioned, showing that primitive man must have observed the evil effects on the animal whose name he associated with them.

In primeval times both the poisonous and medicinal properties of plants appear to have been first discovered and kept secret by the most observant and intelligent members of pastoral and nomadic tribes. The possessor of such secrets wielded an immense power over his fellows and often combined the office of medicine man and priest. He reserved to himself as much as possible the knowledge which he had acquired of plants and their uses, and particularly those which would produce stupor, delirium and death, for by these means he was enabled to exert a greater influence over others.

The study, therefore, of the poisons employed by primitive races for destroying life in animals and man is one of considerable interest. Arrow-heads and spear-heads, worked with depressions, probably for holding poisons, have been found in cave remains of the palæolithic period in France. Laigneau is of the opinion that these weapons were first used to destroy large animals, such as the bison and reindeer, and were probably also used in tribal warfare.

τοξικόν, the Greek word used to denote poison, takes its origin from a word signifying a bow, which probably symbolized a poison-tipped arrow, a custom still practised by savage tribes in various parts of the world. It seems but a natural sequence that man should have turned to his own account the knowledge he acquired of the effects of the substances which proved deadly when introduced into the body by either external or internal means, as in them he found a more secure and secret weapon by means of which he could rid himself of the objects of his jealousy, hatred or revenge.

The Greek toxican, from which the word toxicology is derived, is believed to have been used for the poisonous substance into which the arrow-heads were dipped.

Poisoned arrows are mentioned by several of the early writers, including Homer, Horace and Ovid. The latter tells

how the blood of vipers was used to poison weapons, and there was a general belief that disease and death were caused by poisoned arrows shot by an offended deity, as instanced in the mythical story of Apollo, whose darts were supposed to smite man with pestilence.

The Scythians are known to have used poisons and mixed the venom they employed with human blood. Certain tribes of the Caucasus are said to have employed viper-venom mixed with decomposed human blood serum. Aristotle and Strabo state that the Celts were accustomed to poison their arrows and weapons, while Pliny and Celsus refer to the practice among the Gauls. As late as the seventh century poisoned arrows were used by the Dacians and the Dalmatians on the shores of the Danube, and among the Goths it seems to have been a common custom. Almost every savage tribe and people throughout the world have been found to have their own particular poison for this purpose, and there is little doubt that this method of making the wound caused by the weapons more deadly, has been practised from a period of remote antiquity.

Although most of the substances employed and the methods of preparation are now known to us, there are others about which little or no information can be obtained. The secret of the poison used by many barbaric tribes is still most jealously guarded and is only known to certain chiefs and their families, or the medicine men of the tribe, who pass on the knowledge to their successors. The substances used for lethal purposes are both of animal and vegetable origin, and include poisonous insects and fish, snake venoms and poisonous plants, which are used alone or mixed together. These substances are not equally effective, as the active principle by age tends to decompose, but if the poison be freshly prepared, as it often is, it generally proves fatal. Lewin, however, states that he found an arrow poison used by the Bushmen in Australia still active after remaining for ninety years in a Berlin museum.

The poisons used by the various tribes of Bushmen of Africa vary according to the district in which they live. Livingstone states, that those who inhabited the Kalahari district used the entrails of a small caterpillar for poisoning their spears and arrows. When drawn over a sore, this insect, which is

known to the natives as "Nga," causes the most excruciating agony, and those wounded by arrows smeared with this poison die slowly in a condition of violent delirium.

Baines says the Bushmen squeeze the grub gradually between the forefinger and thumb, when a colourless fluid exudes which is smeared over the arrow-head, forming an imperceptible coating. Modern investigators who have studied the properties of this curious poison, state, that its action strongly resembles some of the snake venoms and that it will retain its properties for an indefinite time. Livingstone also mentions a curious fact that the natives consider that the best antidote to the poison is to swallow the grub.

A very powerful poison employed by other tribes of Bushmen for their arrow- and spear-heads is said by Burchell to be prepared from *Amaryllis disticha*, various species of Euphorbium and Acocanthera, alone or mixed with snake venom, and a species of black spider or beetle poison.

The Bushmen or "Bosjermans" of the South African district called "Kalahari" use the juice of the leaf beetle, or the *Diamphidia simplex*. Lewin, who examined the insect, found in its body besides inert fatty acids, a toxalbumin which causes paralysis and finally death. Boehm, after examination, states that the poison from the larva also belongs to the toxalbumins. The poison grubs are of a pale flesh colour, similar to the silkworm and are about three-quarters of an inch in length. When a wound is made by an arrow poisoned with this exudation the most intolerable agony is caused, which proves fatal.

The Somali prepare a very deadly poison from various species of Acocanthera which they call Waba, Wabayo or Ouabaio, to which they sometimes add snake venom.

The Ovambos of South-West Africa employ a species of Adenium as an arrow poison, while the seeds of the strophanthus (*Strophanthus hispidus* or *kombé*) are largely used by the tribes who inhabit the districts near the Congo and the Zambezi.

The arrow poison of the Pygmies of Central Africa, in which the red ant forms an ingredient, is described by Stanley, and is so very deadly that a single arrow has been known to kill an elephant.

According to a recent writer on Malay poisons,[1] native poisoners frequently use narcotic plants to stupefy their victims as a preliminary to robbing them. They also employ sand, powdered glass, quicklime and other powders to disconcert their pursuers. Some of them claim to be able to know a method of causing loss of voice lasting seven or eight days, by the administration of certain poisons by the mouth. Gimlette asserts that two or three clinical cases have occurred in Kelantan in which it was alleged that the witnesses in court could not give evidence for this reason.

Malay cunning is proverbial, but it is not generally known that the natives are accustomed to use poison in the same manner as employed in ancient times, namely by mixing it with honey which is sometimes smeared on the under surface of a knife. The poisoner then shares a meal with his enemy and divides a water-melon in half with the poisoned blade, but is careful to eat only the upper and harmless portion as his share of the fruit. This method is said to be common in Tregganu, where potassium cyanide is employed for the purpose.

The Malays are said to have a knowledge of slow poisons which they call "time-poisons," by means of which they can give a single dose of poison and time the death of the victim within three, six, or even twelve months, according to the dose and the particular combination used. Native experts, however, say that the idea of this "time-poison" is unfounded, but they know that the effect of certain deadly poisons is greatly accelerated or delayed if certain fruits or vegetables, such as water-melon or cucumbers happen to be eaten soon after the ingestion of the poison.

Some of the Malays believe that poisoned food can be recognized by the shadow of the right hand and fingers not being cast on eating rice. Others believe that a stirring rod of ivory will become darkened if poison has been put into the food, and in Perak a spoon made of the beak of a horn-bill[2] is said to turn black if touched by anything of a poisonous nature.

[1] *Malay Poisons and Charm Cures*, John D. Gimlette, M.R.C.S. 1923.

[2] For the use of horns as antidotes or indicators of poison, see page 55.

The Malays use many different vegetable poisons for their blow-pipe darts, some of which are extremely powerful, but curiously enough some are poisonous to certain animals and not to others, and many of the poisons which destroy human life may be eaten with impunity by graminivorous animals. Thus, opium does not poison pigeons, tobacco and hemlock do not injure goats, and henbane can be eaten by rabbits. The Malay jungle natives have special markings on their blow-pipe darts, by means of which they differentiate their various poisons. That of the upas tree is specially marked to distinguish it from the others.

The sap of the upas-tree (*Antiaris toxicaria*), the active principle of which is called Antiarin, is used as a poison for their darts by the natives throughout the Eastern Archipelago, including Java and Borneo. It is extremely powerful and will sometimes cause death in thirty minutes after a wound is received. It is often mixed with the venom of snakes, scorpions or centipedes and occasionally with arsenic.

The upas-tree sap is collected in primitive vessels fashioned from palm leaves, which are then suspended a few feet above the fire. The boiling process is somewhat protracted and during the whole time the sap is continually stirred. During this operation the liquid is transformed into a thick viscid mass and in this condition it is withdrawn from the fire. When cold the sap is a solid, hard, yet brittle substance, so before it is set, the leaf is rolled up with its soft contents, the two ends tied with rattan and the poison thus kept till it is required.

The darts, which are projected by the natives with blow-pipes, consist of strips of palmwood from 20 to 30 cm. in length; they are pointed at one end and a quantity of poison is then removed from its palm-leaf receptacle and ground up until it is of the consistency of flour. It is then mixed with water and stirred up until it becomes a thin paste, which is smeared upon the points of the darts. The process of preparation takes place before a fire, and when completed they are placed with their points towards the fire until the upas sap has dried into the wood. In the case of the darts that are required for larger game, the point of the weapon is split open and a thin metal wedge or plate is inserted and the whole point is then

smeared over with the poison. The opposite end of the dart comprises a small conical butt made of the soft pith of the sago palm. The darts are carried in small bamboo quivers, which are fixed into the loin-cloth of the native, the points being protected by a piece of animal skin.

North American Indians employ a poison called "Caramari," which they prepare from the roots of a plant found along the sea coast. It is prepared by being burnt in earthen pipkins and to the residue is added a species of spider, hairy worms, bats' wings, the head and tail of a fish called "Teborino," toads and mancanillas. These substances are set over a fire and heated in pots till they come to the consistency of a paste.

The Choco Indians of Colombia, South America, use a poison which they extract from a tree frog which they hold on a stick near a fire, when the heat causes the glands of the skin to secrete the poisonous fluid.

The Jivaro Indians of the Amazon use a vegetable poison called "jambi" for their arrows, which is said to be made from a species of vine which grows in great profusion throughout the Upper Amazon zone. The process for extracting the poison as described by Up de Graff [1] is simple.

"The vine is cut into sections a foot in length, and the thin, hard outer crust of bark is carefully removed by scraping. The main bark, white when first exposed to the air, turns brown in just the same way as an apple. This inner bark is scraped into fine shavings by means of shells and flints, and these are placed in a colander which rests upon a pot in which water is boiling. The water is poured over the contents of the colander repeatedly, until the constant action on it has drawn out the alkaloid, when the lifeless shavings are thrown away and the residue is boiled down until it resembles, both in consistency, colour and smell, plain chocolate. While still warm, it is poured into a bamboo receptacle and when cool it becomes semi-solidified."

The head of the arrow is dipped in the "jambi" and dried in the sun or before the fire.

These arrows have a swift and painless effect on animals and birds of the forest, and after a wound from the poisoned dart projected from a blow-gun, so long as the skin is broken

[1] *Head Hunters of the Amazon*, F. W. Up de Graff. 1922.

at any point, they are killed within about two minutes. Experiments carried out on domestic animals have proved that the poison acts painlessly, the effect being much the same as an overdose of morphine, but despite its proved deadliness "jambi" is never used by the Head Hunters in warfare.

One of the most curious preparations in use among the North American Indians is the so-called "Black Poison," the effects of which are well known around the lakes of the Winnipeg basin and in the Swan River district. Some time after administration it changes the colour of the skin from brownish yellow or copper colour to a sooty black and at the same time causes hair to grow on unusual parts, such as the cheek bones. Its first effects are sickness, headache, and pain in the back and limbs. Afterwards, ulceration and sores break out in various parts of the body, chiefly over the joints and more particularly the knuckles. When prepared, the poison is said to be a brown snuff-like powder with a slight and rather sickening smell. A small quantity administered in food appears to be sufficient to produce these effects. It is said to be partly composed of *Rhus toxicodendron* mixed with a dried acrid matter secreted by the glands in the skin of a species of toad.

The Indian tribes indigenous to California have a curious method of using certain plants to stupefy or poison fish. One of the most effective is "soap root" (*Chlorogalum pomeridianum*.) Besides providing a substitute for soap the crushed pulp is dropped into the water, generally into a small pool or stream, and then stirred. The fish are stupefied by the poison, float to the surface and are captured either by hand or in a basket. Another plant employed for this purpose is known as "blue-curls," or vinegar weed (*Trichostemma lancerlatum*).

Other tribes of Indians in South America use curare, which they extract from a certain species of strychnos and other plants, which were first brought to England by Sir Walter Ralegh in 1595. Although a deadly poison when introduced into a wound or injected under the skin, curare is practically harmless when swallowed; indeed Humbolt states the Indians lick it off their fingers and use it as a stomachic tonic.

The Ainos of Japan are said to have used a preparation made

from aconite and tobacco, while the natives of the New Hebrides are stated to smear their arrows with damp earth containing the tetanus bacillus which infects the person wounded by them.

Besides the use of poisons for offensive purposes, the institution of trial by ordeal still exists among barbaric tribes to-day, especially in Africa. The substances employed vary with the locality inhabited by the tribe. Muavi, which is used by several tribes in Western Africa, is prepared by scraping the bark of a poisonous tree, known only to the witch-doctors. A decoction of the scrapings is made with water and the resulting draught, which is of a highly poisonous nature, is administered to the suspected person. The action of muavi is generally rapid; vomiting is quickly caused, followed by convulsions and death. When both the accuser and the accused are seized with vomiting the natives declare that the draught has been badly prepared, and should the result not prove fatal to either party the test is repeated. When the guilt of one of the parties has been established by death, his property is at once confiscated and his wife and children are killed. So great is the belief of the natives in the infallibility of the Muavi test that they never hesitate to submit themselves to the trial and are said frequently to volunteer to go through the ordeal in order to prove their innocence.

The Balantes and other tribes who inhabit the West Coast of Africa employ Sassy bark (*Erythroplæum Guineense*) for their trial by ordeal. They prepare the poison by mixing the finely scraped or powdered bark with powdered glass, together with the dried and powdered viscera of the victims of the preceding trial. When required for use the mixture is made into a paste with water, about two spoonsful being administered for a dose.

It is customary for the chief of another tribe to preside at the ordeal trial, whose duty it is to see that it is properly carried out. Each person who undergoes the trial has to pay him a fee in cash or in kind, the latter being in the form of rice, chickens or goats. The preparer of the poison and his assistants also receive an honorarium. When one of the Balantes is accused of a crime or witchcraft he must undergo the trial, as after once being suspected he is no longer

protected by the ties of blood and friendship, and a father may even denounce his son or a husband his wife.

Other West African tribes use the Calabar bean, commonly called the Ordeal bean, which contains a powerful poisonous principle called Physostigmine, a drug which is of great value to ophthalmic surgeons to-day in the treatment of the eyes. It is so powerful that a fiftieth part of a grain is considered a poisonous dose. It was customary at one time, in Old Calabar and at the mouth of the Niger, where the plant grows, to destroy it whenever found, a few only being preserved to supply seeds for judicial purposes, and of these seeds the store was kept in the custody of the native chief. Now it is preserved and the beans exported to Europe on account of the value of their active principle in medicine.

Witchcraft plays an important part in the daily life of most African natives and to witchcraft they attribute every ill that befalls them. One kind is practised secretly by evil-doers and the other by the witch-doctors with the view of destroying the effects of the evil-doers. The witch-doctors or medicine-men are undoubtedly the most powerful individuals in their tribes ; they hold the lives of all in their hands, and are daily employed to satisfy the passions of their neighbours. According to native ideas, death or sickness never occurs through natural causes, but is always the result of somebody's act. Whenever anyone is accused of having practised witchcraft or of having committed any other crime, the Calabar bean or the trial by ordeal is used to decide the case, except when the accuser is a witch-doctor, when both the accuser and the accused have to submit to the test.

Roscoe in his book, *The Soul of Central Africa*, alludes to a mysterious poison prepared by the medicine-men of Ankole. It is a tribal custom that should the king feel ill, or through age find his strength failing him, it is his duty to end his life by taking a dose of poison. The ingredients for the fatal draught are always kept at hand by the royal medicine-man, who stores them in a crocodile's egg. "It must have been a strong poison," says the explorer, "for it took effect rapidly, ending the king's life in a few moments. I could not, however, discover the ingredients ; the man absolutely refused to divulge the secret. The king thus experi-

enced no lengthened illness, but passed away in a few minutes after swallowing the fatal potion and his body was at once prepared for the ceremony."

Thus to primitive and barbaric people in various parts of the world we owe much of our knowledge of the properties of many powerful vegetable poisons.

CHAPTER II

POISONS USED BY THE EGYPTIANS, GREEKS, ROMANS, HEBREWS, CHINESE AND HINDUS IN ANCIENT TIMES

MANY mysterious poisons are referred to in the legends and sagas that have come down to us from the dim ages of the past.

The earliest deity associated with poisons is Gula, whose name was revered by the Sumerians about 4500 B.C. She was known as "The Mistress of Charms and Spells," the "Terrible Goddess," "Controller of noxious poisons," and was the deified form of the sorceress. Medical schools at Borsippa and Sirpurra were under her protection. She is described on a cuneiform tablet, said to have been written about 1400 B.C., as :—

"Gula, the woman, the mighty one, the prince of all women.
His seed with a poison not curable
Without issue ; in his body may she place
All the days of his life,
Blood and pus like water may he pour forth."

Ages ago a mysterious country in the far North was supposed to be ruled and dominated by sorcerers and kindred beings, all of whom were said to be children of the Sun. Here dwelt Æëtes, Perses, Hecate, Medea and Circe. To Hecate is ascribed the foundation of sorcery and the discovery of poisonous plants. Her knowledge of magic and spells was supposed to be unequalled. She transmitted her power to Medea, whose wonderful exploits are described in early Greek mythology, and who by her magic arts subdued the dragon that guarded the golden fleece and assisted Jason to perform his famous deeds. Hecate's garden is described by the poets as being enclosed in lofty walls with thrice-folding doors of

ebony, which were guarded by terrible forms, and only those who bore the leavened rod of expiation and the concealed conciliatory offering could enter. Towering above was the temple of the dread sorceress, where the ghastly sacrifices were offered and all kinds of horrible spells worked.

According to tradition, after Medea's adventures with Jason she returned with him to Thessaly, and on their arrival they found Æson, the father of Jason, and Pelias, his uncle, who had usurped the throne, both old and decrepit. Medea was requested to exert her magical powers to make the old man young again, an operation which she is said to have speedily performed by infusing the juice of certain potent plants into his veins, and thus foreshadowing a recent operation for rejuvenating the old by means of injecting the solution of a certain gland.

Medea became the wife of Ægeus, king of Athens, whose son, Theseus, had been brought up in exile and who resolved to return to Athens to claim his rights. Medea, hearing of this, and for some reason greatly resenting it, prepared a poisoned goblet and gave it to Ægeus at an entertainment which he gave to Theseus, with the intent that he should hand it to his son. At the critical moment the king cast his eyes on the sword of Theseus, recognizing it as the weapon which he had given to his son when a child, directing that it should be brought by him when a man as a token of the mystery of his birth. The king at once threw the goblet from him and embraced his son, and as tradition has it, Medea fled from Athens in a chariot drawn by dragons.

Circe's charms were more seductive and romantic. She is said to have been endowed with exquisite beauty, which she employed to allure travellers to her territory. On their landing she entreated and enticed them to drink from her enchanted cup, but no sooner was the draught swallowed than the unfortunate stranger was turned into a hog and driven by the magician to her sty, where he still retained the consciousness of what he had been and lived to repent his folly.

These mythological stories tend to show that some knowledge of poisonous substances existed at a very remote period.

In ancient Egypt a certain crude scientific knowledge probably existed from a period of great antiquity, and some

of the earliest deities, especially the god Thoth, are associated with the genesis of science, arts and magic. Thoth is reputed to have been the author of six divine works dealing with these subjects. He was identified by the Greeks with Hermes Trismegistos, or the "Thrice Great," to whom they attributed the foundation of the science of chemistry. Menes, the earliest Egyptian king of whom we have record, was said to have studied the properties of plants, and other Egyptian rulers cultivated the art of medicine, probably through the priests, who were the chief practitioners in the art of healing in those early times. They apparently gathered knowledge of certain poisonous bodies, both vegetable and mineral. They were learned in the art of alchemy and initiated votaries into its mysteries in their schools of science. The secrets taught were forbidden to be revealed under penalty of death, and therefore, probably, many of the discoveries they made were lost, but there is sufficient evidence to prove that they were conversant with crude arsenic, opium, mandrake, lead and other poisonous substances. This knowledge was probably handed down by oral tradition as part of the priestcraft for centuries before it was committed to writing.

The earliest known record of the actual preparation of a substance of a lethal nature is mentioned in an Egyptian papyrus, now in the Louvre, in which the following sentence, as translated by Duteuil, occurs: "Pronounce not the name of I.A.O. under the penalty of the peach."

The Egyptians were probably the first to practise distillation, and from the stones of certain fruits they apparently discovered that they could extract a powerful poison which we now know as prussic acid.

The Hebrews in ancient times were also acquainted with the use of poisonous substances. Arsenic was known to them as "Sam," aconite as "Boschka," and they are said to have known of the poisonous properties of ergot which they called "Son."

Coming to times of early culture in Greece, the knowledge of poisons had made a considerable advance. The Greeks knew of arsenic in the form of realgar and orpiment, antimony, mercury, gold, silver, copper and lead, and they probably had a knowledge of their poisonous properties, as they

recommend hot oil as an antidote in a case of poisoning and mention other means to promote vomiting and prevent a poison being absorbed into the system.

Of the vegetable poisons known and used by the Greeks hemlock appears to have been chiefly employed. They looked upon suicide under certain conditions as a noble act, and sanctioned the use of the poison cup by those who desired to terminate their existence on earth. They also employed poison as a means of execution. The State Poison was chiefly composed of a species of hemlock called cicuta, the seeds of which were pounded in a mortar as the first step in preparation. Several of the early historians, including Plato, describe the action of the plant used, but its identification has long been a matter of dispute. From all accounts the poison draught does not appear to have been either very powerful or rapid in its action, as a second dose was often found to be necessary before death ensued.

At the death of Phocion it is recorded that "having drunk all the hemlock juice, the quantity was found insufficient and the executioner refused to prepare more unless he was paid twelve drachmas." When Seneca also wished to end his life, a friend and physician, at his request, procured for him some of the Athenian State Poison, but when he took it the effect was inadequate.

The circumstances attending the death of Socrates, which happened in the year 402 B.C., are thus recounted by Plato:

"When the fatal cup was brought he asked what it was necessary for him to do. 'Nothing more,' replied the servant of the judges, 'than as soon as you have drunk of the draught, to walk about until you find your legs become weary and afterwards lie down upon your bed.'

"He took the cup without any emotion or change in his countenance and, looking at him in a steady and assured manner,

"'Well!' said he, 'what say you of this drink?'

"'May a libation be made out of it?'

"Upon being told that there was only enough for one dose, 'At least,' said he, 'we may pray to the gods as is our duty and implore them to make our exit from this world and our last stage happy, which is what I most ardently beg of them.'

"Having spoken these words he remained silent for some time and then drank off the whole draught.

"After reproving his friends for indulging in loud lamentations, he continued to walk about as he had been directed until he found his legs grow weary. Then he lay down upon his back and the person who had administered the poison went up to him and examined for a little time his feet and legs, and then squeezing his foot strongly, asked whether he felt him? Socrates replied that he did not. He then did the same to his legs, and proceeding upwards in this way, showed us that he was cold and stiff, and he afterwards approached him and said to us that when the effect of the poison reached the heart Socrates would depart. And now the lower parts of his body were cold, when he uncovered himself and said, which were his last words, 'Crito, we owe Æsculapius a cock. Pay the debt and do not forget it.'

"'It shall be done,' replied Crito. 'But consider whether you have anything else to say.'

"Socrates answered in the negative, but was in a short time convulsed. The man then uncovered him; his eyes were fixed and when Crito observed this he closed his eyelids and his mouth."

The poison which is given the general name of *φάρμακον* by Plato, is termed *κώνειον* by Xenophon in relating the execution of Theramenes, whose death occurred but forty years after Socrates. The same word is again used by Plutarch in describing the State Poison by which Phocion fell a victim to the Athenians in the year B.C. 317.

Aristophanes, who was contemporary with Socrates, furnishes further evidence that the State Poison was commonly known in Athens by the name *κώνειον*, for in "The Frogs," which was acted many years before his death, the following allusion to the poison occurs:—

HERCULES: Then there is a short and beaten road—that by the mortar.

BACCHUS: Speakest thou of hemlock, then?

HERCULES: Most certainly.

BACCHUS: A journey cold and winterly forsooth, for it immediately congeals the shins.

Pliny and the other Latin authors use the word cicuta when alluding to the State Poison of the Greeks. Dioscorides (*circa*

A.D. 40) in his work on Materia Medica, describing the cicuta, says it has a knotted stem and likens it to fennel. "Its branches shoot with umbels at their summits, while it bears a whitish flower with a heavy smell and a fruit like that of anise, but whiter." From this it was evidently an umbelliferous plant. Pliny refers to the spots on the stem, which further identifies the plant as the *Conium maculatum*, or hemlock.

According to Sibthorpe, *Conium maculatum* grows in various parts of Greece and in the vicinity of Athens, and no other poisonous umbelliferous plant grows in that country. This seems conclusive evidence that the cicuta of the Greeks was the plant we know as *Conium maculatum*.

In addition to this, Pliny states that the cicuta (described by him as the Athenian State Poison) grows in Attica and at Megara, and describes the seeds and leaves as particularly fatal when drunk in wine, the former producing the most deadly effects.

The clinical effects of the drug as graphically described by Plutarch are identical with those produced by conium or hemlock. He mentions the coldness of the extremities, concluding with its influence on the brain, which would account for the strangeness of the last words of Socrates, referring to a sacrifice to the deity who presided over the Medical Art.

It is probable that opium was sometimes combined with hemlock, judging from the statement of Theophrastus, who was born only twenty-eight years after the death of Socrates.

He says: "Thrasyas, the Mantinian, stated that by making use of the juices of cicuta, the poppy and such other things, he had discovered a substance which occasioned death easily and without pain, and so portable and minute that the weight of a *δραχμή* (about sixty grains) was sufficient and absolutely irremediable." Further, that it was capable of being preserved for any time without alteration. That a powerful preparation and certain in effect was required at the time of the death of Socrates, is evident from the caution of the executioner, who states that none of the contents of the cup could be spared. Judging from all accounts, and the evidence afforded by the description of its action, there seems little doubt that the Athenian State Poison consisted of hemlock, probably in the form of the concentrated juice of

the leaves, to which a proportion of poppy juice was added to render its action more certain.

A curious custom prevailed among the inhabitants of the island of Ceos in which poison played a part. When the old men found they were no longer of service to the State and began to feel life a burden, they assembled at a banquet of death and, with their heads crowned with chaplets, cheerfully drained the poison cup. A relic of this ancient custom was once practised at Marseilles, where a poison was kept by the public authorities, of which hemlock was an ingredient. A dose of this was allowed by the magistrates to anyone who could bring a sufficient reason why he should deserve death. Valerius Maximus observes, "This custom came from Greece, particularly from the island of Ceos, where I saw an example of it in a woman of great quality who, having lived very happy ninety years, obtained leave to die in this way, lest by living longer she should happen to see a change of her good fortune."

The reputed poisonous property of bull's blood is recorded by various ancient writers, and it is stated that Æson, Midas King of Phrygia, Plutarch and Themistocles the Athenian leader employed it as a means of suicide. It is probable that some strong poisonous vegetable substance such as cicuta was mixed with it.

The symptoms and signs which were accepted in early times as evidence of poisoning are sufficiently crude to inspire us with considerable doubt as to the reliability of many of the cases narrated. That there were certain post-mortem appearances which were generally considered as evidence of death by poison is recorded by Cicero, Tacitus and other early writers. In the account given by Suetonius of the death of Germanicus, who was poisoned by Piso at the instance of Tiberius, they are enumerated as "livid spots on the face and body, and foam at the mouth." It was further generally believed that worms could not generate in the bodies of persons who had died from the effect of poison.

Dioscorides throws a further light on the poisons of antiquity in his work on Materia Medica, which for fifteen centuries or more remained the chief authority on that subject. He mentions cantharides, copper, mercury, lead and arsenic.

Among the animal poisons he includes toads, salamanders, poisonous snakes, a peculiar kind of honey, and the blood of the ox, probably after it had decomposed. The sea-hare is frequently alluded to by the ancient Greeks, and was evidently regarded by them as capable of producing a very powerful poison. Domitian is said to have administered it to Titus. It is supposed to have been one of the genus Aplysia, among the gasteropods, and is described by the old writers as a dreadful object which was neither to be touched nor looked upon with safety.

Among the poisonous plants enumerated by Dioscorides are the poppy, black and white hellebore, henbane, mandragora, hemlock, elaterium, the juices of a species of euphorbia, and apocynae. The black and white hellebore were known to the Romans and used by them as an insecticide, and Pliny states that the Gauls used a preparation of veratrum to poison their arrows. Arsenic, in the form of the native realgar and orpiment, was employed by the Greeks as a caustic and for removing hair from the face; but no mention is made of it being used internally or as a poison. Copper, mercury, and lead were also used in their medical treatment. The study of poisons was forbidden for a long period, and Galen mentions the fact that only a few philosophers dared treat the subjects in their works.

Theophrastus states that the poison of most subtle operation of his time was extracted from wolf's bane (aconite); no antidote had been discovered to this poison and it was a capital crime to have in one's possession the plant from which it was extracted. He tells us that in Ethiopia "there grows a certain deadly root, with which the people smear their arrows," and "In Scythia there are others some of which kill at once those who eat them, some after an interval shorter or longer, so that in the latter case men have a lingering death." He thus relates the story of one Thrasyas of Mantineia, who had discovered

"a poison which produces an easy and painless end; he used the juices of hemlock, poppy, and other such herbs, so compounded as to make a dose of conveniently small size, weighing only somewhat less than a quarter of an ounce. For the effects of this compound there is absolutely no cure, and it

will keep any length of time without losing its virtue at all. He used to gather his hemlock, not just anywhere, but at Susa, or some other cold and shady spot ; and so too with the other ingredients. His pupil Alexias was also clever and no less skilful than his master, being also versed in the science of medicine generally.

" At last Eudemus, the vendor of drugs, who had a high reputation in his business, after making a wager that he would experience no effect before sunset, drank quite a moderate dose, and it proved too strong for his power of resistance : while the Chian Eudemus took a draught of hellebore and was not purged. And on one occasion he said that in a single day he took two and twenty draughts in the market-place as he sat at his stall, and did not leave the place till it was evening, and then he went home and had a bath and dined, and was not sick. However, this man was able to hold out because he had provided himself with an antidote ; for he said that after the seventh dose he took a draught of tart vinegar with pumice-stone dust in it, and later on took a draught of the same in wine in like manner ; and that the virtue of the pumice-stone dust is so great that if one puts it into a boiling pot of wine it causes it to cease to boil, not merely for the moment, but altogether, clearly because it has a drying effect and it catches the vapour and passes it off. It was by this antidote that Eudemus was able to contain himself in spite of the large quantity of hellebore which he took."

Livy records that about 200 B.C. several persons of distinction died in a mysterious way in Rome. At first it was thought that they had succumbed to plague, but Quintus Fabius Maximus is said to have been informed by a female slave, that the persons had been poisoned and that she could reveal the names of the guilty. The matter was laid before the consuls and the Senate. The stipulated pardon was granted, and, guided by the slave, the officers of justice are said to have discovered the poisoners, among whom were women belonging to the noblest families of Rome. Twenty in all were seized ; two of them, Cornelia and Serpi, undertook to speak for the rest, and declared that the drugs they had prepared were medicinal. They were told that to prove this, the preparation they had made would be tried on themselves and to this test they agreed. After drinking the draughts it is said they all died. One hundred and seventy more of the noblest ladies of Rome were seized,

on similar information and condemned, and before that day, says Livy, there was never an inquest on poisoning. To mark this memorable example of what had never been done before, it was resolved to have a nail driven into the temple of Jupiter. A dictator was appointed for that mystic duty, a master of the horse, and he drove a nail into the temple of Jupiter, after which a stop was put to poisoning for two or three centuries.

Unfortunately, however, the method of taking life by poisons did not die out, but apparently increased and became very common in Rome under the early Emperors. Among these nefarious practitioners, mostly apparently women, was Locusta, who lived in the time of Nero. She had been condemned to death for a case proved against her, but her life was spared, so that she might use her nefarious methods in the service of the State. She was employed by Agrippina to poison the Emperor Claudius and to her is attributed the death of Britannicus, whom Nero wished to remove from his path. Britannicus was dining with his brother and the Imperial family, and as was the custom of the Romans, hot water was brought round by slaves to the table, the water being heated to varied degrees to suit the taste of the drinker. The cup of water handed to Britannicus proved to be too hot and he gave it back to the attendant slave, who added cold water to it, which addition is supposed to have contained the poison, for no sooner had he swallowed the draught than he fell back, gasping for breath. His mother, Agrippina, and Octavia, his sister, became terror-stricken, but Nero, unmoved, calmly remarked that he often had such fits in his youth without danger, and the banquet proceeded.

A curious tradition which has survived from early times, and still entertained by the ignorant, is, that if a body after a sudden death rapidly decomposes, it is to be attributed to the effects of poison, thus when Britannicus died it is recorded that the Romans attempted to conceal his discoloured face by the use of paint.

Locusta appears to have been appointed a kind of unofficial poisoner-in-ordinary to the Emperor, one of her duties being to train pupils so that her secrets should not be lost. She was encouraged to experiment with her know-

ledge on slaves, who were liberally supplied for the purpose.

The Persians in ancient times are said to have studied with care the art of poisoning. Plutarch and Ctesias relate that Queen Parysatis, the mother of Cyrus the younger, during the reign of Artaxerxes II (405–359 B.C.), poisoned her daughter-in-law Statira by means of a knife, one side of the blade being smeared with venom. A bird was set before the two queens at supper and was divided by the poisoned knife; Parysatis ate her half with impunity, but Statira died. Such is the story, but there is no evidence to corroborate it. The Carthaginians were apparently also skilled in the art of poisons, and it is related that they killed Regulus, the Roman general, by this means.

With reference to the use of poisons in Persia in early times the poet Nizámi, in his *Treasury of Secrets*, relates a story of rivalry between two court physicians which finally reached such a point that they challenged one another to a duel or ordeal by poison. It was agreed that each should take a poison supplied by his antagonist, of which he should then endeavour to counteract the effects by a suitable antidote. The first prepared a poisonous draught "the fierceness of which would have melted black stone"; his rival drained the cup and at once took an antidote which rendered it innocuous. It was now his turn, and he picked a rose from the garden, breathed an incantation over it, and bade his antagonist smell it, whereupon the latter at once fell down dead. That his death was due simply to fear and not to any poisonous or magical property of the rose is clearly indicated by the poet:

"Through this rose which the spell-breather had given him
Fear overmastered the foe and he gave up the ghost.
That one by treatment expelled the poison from his body,
While this one died of a rose from fear."

An incident which happened to the army led by Mark Antony against the Parthians, and described by Plutarch, is said to have been caused by aconite. At one time during the expedition, the soldiers, being very short of provisions, sought for roots and pot-herbs and met one that brought on madness and death. "The eater immediately lost all memory

and would busy himself in turning over every stone he met with as if on some important pursuit. The camp was full of unhappy men digging up and removing stones, till at last they were carried off by bilious vomiting." Whole numbers, says Plutarch, perished, and the Parthians still continued to harass them. Antony is said to have frequently exclaimed: "Oh! the ten thousand!" alluding to the army which Xenophon led in retreat both a longer way and through more numerous conflicts and yet led in safety.

There is a story told of Alexander the Great that after crossing the Cydenus, he was seized with a fever and was warned by Parmenio in a letter not to take the medicine which his physician offered to him for fear of poison. The physician's name was Philip, and Alexander so trusted him that he gave him the letter to read, scanning his face meanwhile. The calm air of the physician satisfied the ailing conqueror and assured him that he might safely drink the potion.

The death of Alexander the Great, like that of many other monarchs, is ascribed by some historians to poison, but from Littré's investigations it would appear that the great Emperor, debilitated by his drinking habits, contracted malarial fever in the marshes round Babylon and died after an illness of eleven days.

In India and the Far East, poisons have been used from very early times, not only for the destruction of human life, but also for destroying animals; arsenic, aconite, opium and many other poisonous mineral and vegetable substances being employed for the purpose.

The Hindus have many curious traditions concerning poisons, and like the Western nations attribute to some the property of causing a lingering death, which can be controlled by the will of the poisoner. The knowledge of the substances employed is guarded with great secrecy and even now they are not fully known. Blyth mentions a mysterious substance known in India, called *Mucor phycomyces*, which is said to be a species of fungus. When the spores are administered in warm water they are said to attach themselves to the throat and speedily develop and grow, with the result that in a few weeks the respiratory organs are attacked and the victim is rapidly carried off as if by a fatal disease. Nine active or virulent

poisonous substances are mentioned by the ancient writers on Hindu medicine. Some of them are at present still unidentified, while others, there is little doubt, are varieties of aconite, also opium, ganja (*Cannabis indica*), datura stramonium, the roots of *Nerium odorum*, and *Gloriosa superba*, the milky juices of *Calatropis gigantea* and *Euphorbia neriifolia*, white arsenic, orpiment and the poison venom from snakes.

Most of the early Sanscrit MSS. are written on paper prepared with orpiment to preserve them from the ravages of insects. Three varieties of datura yield atropine, a powerful poison. These plants were frequently employed in India for putting a sudden end to domestic quarrels, and to this practice may be traced the origin of the custom of "Suttee," or widow-burning, as the Brahmins found from experience that by making a wife's life co-terminous with the husband's, the average husband lived considerably longer. It is worthy of note that the diamond was celebrated as a medicinal agent by the Hindus, who prepared it by roasting it seven times and then reducing it to powder. It was given in doses of one grain as a powerful tonic.

Both the Chinese and Japanese, from ancient times down to the present day, have paid a great deal of attention to the study of poisons. From an early period the Chinese are said to have used gold leaf for suicidal purposes, and at the present time when a high official puts an end to his life it is officially announced that he has "taken gold leaf."

At the time of the death of the Emperor Kwang Su, the cause of which was enveloped in mystery, it was rumoured that he did not die from natural causes, but committed suicide by request. For some time previous to his death, it is said that the Emperor had led a miserable existence and was simply a ruler in name. The Dowager-Empress, Tzu Hsi, had resolved that her nephew should precede her to the tomb. She therefore convoked the Grand Council and as a result of this conclave it was announced that Kwang Su was dangerously ill from heart disease, but the offers of the foreign Legations to send their medical officers were firmly declined.

According to the story "at ten o'clock next morning the Chief Eunuch, with two confidential attendants, entered the

Little Palace where the Emperor was confined, and after having ordered everybody out of the room he declared to Kwang Su that the Empress was dying, and that it was needful for him to predecease her.

"He then deposited on a table, pills of opium, a packet of gold leaf, and some yellow silk plaited cord, promising to return in three hours' time. If he found that neither the opium nor the gold leaf had been used it would be his painful duty to call upon the two assistants to strangle him with the silken cord. Meanwhile, the two executioners would watch the door of the room. It should be explained that a piece of fine gold-leaf is placed over the lips, and, the breath being deeply drawn, it is inhaled and obstructs the glottis, causing immediate suffocation."

When the Chief Eunuch returned at one o'clock, he found the opium pills had disappeared and Kwang Su was stretched unconscious on his couch, but still breathing. It was stated that he died at five o'clock, and the three-year-old Pou Yi was at once brought to the Imperial Palace and proclaimed Emperor.

The Japanese are said to import from China certain powerful poisons prepared by the Chinese medicine men, the secret of which is only known to them. They are thought to be a mixture of both animal and mineral substances which have a very deadly effect, though their exact composition is yet undetermined.

CHAPTER III

ANTIDOTES TO POISON IN ANCIENT TIMES

JUDGING from the earliest laws on record, criminal poisoning does not appear to have been common amongst the ancient Egyptians or Hebrews.

The first recorded instance of a judicial trial for poisoning at Rome is stated by Livy to have been in the year 329 B.C. In the time of Justinian (A.D. 483–565) the aid of the physician was called in specially during the investigation of crime. According to the institutes or laws of that period, those who by odious arts, whether by poison or by "magical whispers" (incantations), took away the life of another, were punished with death. A contract for the sale of a poison was also held to be void "on the analogy of the contracts of partnership and agency which have no power to deal with improper matters."

It seems appropriate that the first law to regulate the sale of poisons should have been enacted in Italy. Thus as early as 1365 a statute was passed in Siena rendering it illegal to sell red arsenic or corrosive sublimate to any slave, freed or otherwise, or to any servant or person under twenty years of age. These poisons could only be sold to an adult who was well known to the apothecary. There was also a law in Perugia in 1378 which enacted that a person could not obtain a poison without the express permission of a doctor, which permit should state the purpose for which it was intended to be used. The statutes of Genoa (1488) amongst other items demanded that in no medicament should substitution be allowed, or as the statute reads "Ponere quid pro quo" without the doctor's express permission. The pharmacist was to be careful that honey was not substituted for sugar, nor that the latter should serve as a cover for the former, and that he should put neither rice nor starch in anything composed of sugar, in whole or in part.

In ancient times there is little doubt that many people

died from the effects of poison without suspicion, although on the other hand many more succumbed to the sudden effects of latent and unrecognized diseases, such as aneurism, peritonitis and others of which practically nothing was known, whose deaths were wrongfully attributed to poison. Before the period of judicial post-mortem examination, the practice was to expose the bodies for inspection to those who were believed to be able to form a sufficiently accurate judgment for themselves as to the cause of death.

It was believed that poisonous substances had a peculiar action on the heart and were capable of altering its substance in such a manner that it resisted the action of a funeral pyre and remained unconsumed. When the heart resisted the pyre it was regarded as unmistakable evidence that the person had perished by poison. If, in addition, the body from any cause rapidly decomposed, such a sign was at once believed to be conclusive of death from poison. This belief prevailed to a greater or lesser extent down to the middle of the seventeenth century.

From the time man first discovered the effects of poisonous substances, he no doubt began to consider some means of preventing their action if taken internally by accident. He sought also to find protection against the bites of venomous animals, reptiles and mad dogs. Homer (900 B.C.) in the "Odyssey," in the account of Ulysses' men, alludes to a plant which Hermes recommended him to take when he set out to rescue his followers :—

> "Then take the antidote the Gods provide
> The plant I give through all the direful power
> Shall guard thee and avert the evil hour."

This is thought to refer to a herb called moli or molu which is often mentioned by ancient writers. It is alluded to by Theophrastus, Ovid, Pliny, Dioscorides and Galen and it was considered to be a species of Allium. It is described by some as a plant having an onion or squill-like odour, and was said to grow in Arcadia and Campania.

The Hindus, like other ancient peoples, also had an idea of a universal antidote against poisons, as expressed by the word "agada."

Apparently the ambition of the early Greek physicians was to discover a universal antidote to all poisons, and many of them appear to have devoted years and spent a great part of their lives in attempting to find it. These antidotes were called by the Greeks Alexipharmics, or Theriacs, the former word being derived from the Greek "Alexipharmakos," meaning that which keeps off a poison, and the noun "antipharmakon," an antidote.

One of the earliest writers on the subject was Nicander of Colophon (185–135 B.C.), who was physician to Attalus, King of Bithynia, under whom he is said to have secured special facilities for studying poisons, being allowed to experiment upon condemned criminals. He was an hereditary priest of Apollo at Clarus. He wrote a work in about a thousand hexameters on

Theriaca, which deals with the bites of venomous animals and six hundred hexameters on

Alexipharmica, which treats of poisonous substances when swallowed by the mouth, and the use of emetics.

Theriaca became an actual substance and differed from the *Alexipharmica*, which was more a method of treatment. This division was afterwards adopted by all the subsequent early writers on the subject, including Dioscorides, Galen, Aetius, Paulus Aegineta, Avicenna and Rhazes.

From the first century theriaca was regarded as a very important compound, and in the endeavour to secure the most effective combination for the purpose, the most extraordinary formulæ containing a large number of ingredients, were devised by various physicians. The general treatment recommended by Nicander for the bites of all venomous animals was sucking the wound, applying cupping vessels to it, cauteries and leeches, and afterwards administering stimulant medicines.

Respecting the sucking of a wound, he gives an important injunction that the person who sucks the wound should not be fasting, from which it may be gathered that he was aware of the physiological fact that the vessels absorb more readily when in an empty state.

Nicander's particular remedies were such drugs as birthwort, alkanet, and theriaca of vipers, which was prepared with

a great many aromatic roots and fruits, including ginger, cinnamon, myrrh, iris and gentian. In his work he mentions twenty-two poisonous substances including :

Aconite (wolf's bane), litharge (lead oxide), buprestis (a beetle resembling cantharides), ceruse (white lead), conium (hemlock), cantharides, hyoscyamus (henbane), ixias (probably a species of chameleon), coagulated milk, sea-hare, poppy (opium), pharicum (probably a composition of agaric), the red toad and marsh frog, the salamander, bull's blood, taxus (yew), and toxicum (an unknown poison). As antidotes he recommends warm oil, warm water and mallow or linseed tea to excite vomiting.

From this list we have some idea of the knowledge of poisons at that period. Most of the substances enumerated are of vegetable or animal origin, few of the soluble mineral poisons being known at that time.

Galen noticed that opium dissolved in a small quantity of wine produced stronger effects than when given alone, and that when a larger draught of wine was given, it proved an antidote by counteracting the narcotic powers of the opium. He stated that he once cured a person reduced to the last stage of coma by the administration of strong wine.

Dioscorides also dealt very largely with this subject, and, like Nicander directs that " the person who sucks the poisoned wound be not fasting and that he shall keep some oil in his mouth." The wound is then to be fomented with a sponge and scarified or cut out, a method on which there is no improvment at the present time. Cauterization with fire is another method which Dioscorides recommends, and for the bite of a venomous serpent known to be fatal, he advises immediate amputation to save life.

According to Pliny and Galen, the formula for the first theriaca against the bites of all venomous animals was inscribed in verse on a stone in the temple of Asklepios on the island of Cos. It contained wild thyme, opoponax, aniseed, fennel, parsley, meum and ammi. These were to be beaten up with meal of fitches (ervum ervilla), passed through a sieve, kneaded with wine, cut into lozenges of the weight of half a denarius (30 grammes), one to be placed in three cyathi (about five ounces) of wine and swallowed.

The next theriaca in antiquity is that originated by Antiochus the Third, King of Syria and Babylon, who flourished about 223 B.C. He is said to have devised a compound that was proof against the bites of all venomous animals and reptiles except the asp.

One of the most celebrated of the theriaca was that of Mithridates VI (120–63 B.C.), King of Pontus in Asia Minor. From the constant apprehension of being poisoned by his enemies, Mithridates is said to have rendered himself immune from their effects by taking small doses of poisonous substances daily in combination with the antidote he devised, and thus believed himself poison-proof. For many years he carried on warfare with the Romans, but was finally defeated by Pompey, and, not wishing to fall into the hands of his enemies, he put an end to his life. After the conquest Pompey is said to have captured the coveted formula among the secret papers of the King.

This compound contained fifty-four ingredients, which were prepared in the form of a conserve or electuary. Needless to say this elaborate remedy would be quite useless as an antidote to any poisonsous substance, but judging from what Pliny tells us of some of the so-called poisons known to Mithridates, such as "the blood of a duck found in a certain district of Pontus" which was supposed to live on poisonous food, it is no wonder he had a belief in its efficacy. Curiously enough, Mithridates employed the duck's blood as an ingredient in the later modifications of his theriaca, and he tells us that he did so because he observed that "these ducks fed on poisonous plants and suffered no harm."

Another theriaca is attributed to Zopyros, a Greek physician of Alexandria, about 80 B.C. He named his formula "Ambrosia," and it contained frankincense, galbanum, pepper and other aromatic substances, made into a conserve with boiled honey. A piece the size of an Egyptian bean was directed to be taken, washed down with a draught of wine.

Equally celebrated was the theriaca of Philon of Tarsus, who is said to have lived in the early part of the first century and recorded his formula in symbolic Greek verse. Galen mentions that it had a great reputation for a long time and was one of the most famous compounds of the kind. It contained such

curious substances as "the red hair of a lad whose blood had been shed on the fields of Mercury," which was possibly symbolic language for suffering, and certain drugs the names of which are disguised in mystic language. The whole of the mixture was to be made into a conserve with "the work of the Daughters of the Bull of Athens" which is supposed to mean Attic honey.

The Theriaca Philonium survived over 1,700 years and has an interesting history. It passed into many of the pharmacopœias of Europe, remaining in the *London Pharmacopœia* until 1746, when it was composed of opium, pepper, ginger, caraway, syrup, honey and wine. Until 1746 it was called "Philonium Romanum," but was then changed to "Philonium Londonense," and syrup of poppies was substituted for the honey. It is probable that this mixture was originally intended as a remedy for a peculiar form of colic which became epidemic in Rome when Philon flourished there. Philon's formula formed the basis of what was afterwards known as Confection of Opium and remained in the *London Pharmacopœia* until 1867.

The Theriaca which eclipsed all others in fame and popularity was that originated by Andromachus, physician to Nero (A.D. 37–68). So much did the Emperor appreciate his physician's efforts to devise a universal antidote that he raised him to the dignity of Archiatrus. The Theriaca of Andromachus was claimed to be an improvement on that of Mithridates, until then the greatest antidote in Roman pharmacy. He added vipers to the compound and called his theriaca "Galene." Like other physicians of his time Andromachus wrote his formula and described its virtues in Greek verse, which he dedicated to Nero. He claimed that it would "counteract all poisons and bites of venomous animals and that it would also relieve all pain, weakness of the stomach, asthma, difficulty of breathing, phthisis, colic, jaundice, dropsy, weakness of sight, inflammation of the bladder and kidneys, and plague." It was indeed a panacea for all complaints.

Galen states that he tested this antidote by giving it to a number of fowls to which he had first administered a poison. Those to which the theriaca had been given survived, but all

the others died. He says that it resisted poison and venomous bites and cured a great many diseases. The original formula contained no less than seventy-three ingredients, including dried vipers. This remarkable preparation remained in popular use throughout the Middle Ages and is still made and sold in the drug bazaar of Constantinople and also in some parts of Italy.

About the year A.D. 50 the Theriaca of Democrates became famous. This was similar to the compound of Andromachus, the formula for which Democrates, a Greek physician then living in Rome, translated into verse. Other formulæ were originated by Nicolaus of Salerno, Amando, Arnauld and Abano, each of whom added something to the original formula. These preparations may be said to have reached their zenith in the sixteenth century when Pietro Andrea Matthiolus, the commentator of Dioscorides, published another formula which contained no less than two hundred and fifty separate substances, including dried vipers, pearls, red coral and emeralds. This formula in a modified form was included in the *London Pharmacopœia* in 1618 and remained an official remedy until 1746.

Several cities became celebrated for the manufacture of Theriaca, including Cairo, Florence, Genoa, Bologna and Venice. The Theriaca of Venice or Treacle, as it was called, contained sixty-one ingredients, had a reputation throughout Europe and was included in the *London Pharmacopœia* down to 1746. In Bologna the mixing of the Theriaca was carried out with great ceremony in the courtyard of the ancient Archiginnasio in the presence of the chief officials of the city. The ingredients were mixed under the supervision of the medical professors of the University to ensure of it being faithfully and properly compounded. From the fourteenth to the seventeenth century it was regarded as a remedy for plague and was used in great quantities. Evelyn, in his Diary, March 23, 1646, thus alludes to the Theriaca of Venice—

"Having packed up my purchases of books, pictures, casts, treacle, etc. (the making and extraordinary ceremony whereof I had been curious to observe, for it is extremely pompous and worth seeing) I departed from Venice."

The great consumption of this medicament in the six-

teenth century is evidenced by Morgan, Apothecary to Queen Elizabeth, who in a pamphlet insists that a product that he had made had been compared with other "theriacle" brought from Constantinople and Venice and had been commended.

"It is very lamentable to consider," he writes "that straungers doe dayly send into England a false and naughty kinde of Mithridatium and Threacle in great barrelles more than a thousand weight in a year, and vtter ye same at a lowe price for 3*d*., and 4*d*. a pound, to ye great hurt of Her Majesties subjects and no small gaine to straungers purses."

In 1612, it is recorded that the Master and Wardens of the Grocers' Company of London marked that "a filthy and unwholesome baggage composition was being brought into this Realm as Tryacle of Genoa, made only of the rotten garble and refuse outcast of all kinds of spices and drugs, hand overhead with a little filthy molasses and tarre to worke it up withal." This was communicated to the College of Physicians, and they set about not only to devise their own formula, but to superintend its manufacture, which was then entrusted to William Besse, an apothecary in the Poultry. Besse was made to take a "corporal oath" before the Lord Mayor, and every year when he made the confection had to show the ingredients and the product to the College of Physicians. His treacle was sold at not above 2*s*. 8*d*. per lb. or 2*d*. per ounce.

The use, however, of this medicament in Great Britain goes back to a much earlier period. It was recommended to Alfred the Great by Helia, the Patriarch of Jerusalem, according to an Anglo-Saxon MS. of the eleventh century. It is again mentioned by Foucher de Chartres in 1124, who states it was used in the first Crusade. It is recorded in a Close Roll of King John in 1208, and a "triacle box du pere apelle une Hakette garniz d'or" is mentioned amongst the precious effects of Henry V.

Prosper Alpinus, the physician of Padua, who travelled in Egypt in 1591, refers to the manufacture of Theriaca in Cairo and states that it was only allowed to be made in public, and that the ceremony was performed once a year in the Mosque of Morestan by the chief apothecary of the city in the presence of all the physicians. He states that at that time Italians,

Germans, Poles, Flemings, Englishmen and Frenchmen came to Cairo to purchase this true Theriaca.

Much more might be written describing the making of this ancient and interesting medicament, which has a literature of its own, but it will be sufficient to quote one more account from the Regulations and Statutes of Montpellier, where the compounding was also carried out with great ceremony.

According to a report by Laurens Catelan, Master Apothecary in Ordinary to Monseigneur the Prince of Condé, it was required that the preparation should be made in public in the presence of the very illustrious professors of the famous Faculty of Medicine so that they might have the opportunity of censuring or approving the ingredients and that the public might therefore be sure of the virtue of these important medicines.

It may well be asked what was the rationale of administering these extraordinary compounds which survived for centuries. All that can be said is, that these complex mixtures of gums, balsams and aromatic substances would probably have some antiseptic action on the alimentary and internal organs. They were generally directed to be given with wine which would aid this effect and, at any rate, would have a reviving and stimulating effect on the individual, but no real antidotal properties can be ascribed to them.

The search for antidotes to poison was not confined entirely to the Old World, for according to the *Carolina Gazette* of May 9, 1750, the General Assembly, the Governing Body of the Colony, authorized the publication of "Nigger Caeser's cure for poison." The General Assembly had purchased Nigger Caeser's freedom, who was apparently a slave, and granted him £100 a year for life as the price of his formula, which consisted of roots of plantain and wild horehound, 3 oz. boiled together in 2 quarts of water down to 1 quart and strained. Of this, one-third was to be given every morning fasting for three consecutive mornings. Certain dieting was also required, and it is stated that if in the three days' treatment no benefit had resulted, it was a sign that the patient had either not been poisoned at all or had been by such poisons as Caeser's antidote would not remedy.

CHAPTER IV

PREVENTIVE METHODS AND SUBSTANCES USED AGAINST POISONS

AMONG the famous medicaments of antiquity reputed to be effective in counteracting poisons was " terra sigillata " or " sealed earth," a peculiar clay which originally came from the Isle of Lemnos. Its reputation dates from the time of Herodotus, and it continues in use in Turkey and some parts of the East to-day. This red clay was formerly excavated from the side of a certain hill on August 6, with great ceremony, in the presence of the principal inhabitants of the island. The ceremony was originally associated with the worship of Diana and was carried out on May 6, each year. This particular earth was not allowed to be dug by anyone on any other day of the year except that formally set apart for the operation.

According to Dioscorides, the clay was made into a paste in his time with goats' blood, and the Greeks stamped or sealed the earth with a representation of Diana, one of the goddesses associated with healing, and this seal was regarded as sacred. It had a universal reputation as an antidote to all poisons, and a poisoned liquid drunk from a cup made from the clay was believed to be harmless. The earth was so called on account of the seal stamped upon it in proof of its being genuine.

So great was the demand for the famous " terra sigillata " of Lemnos from the thirteenth to the fifteenth century that many other earths, for which similar properties were claimed, were exploited and recommended in books on medicine of the period. Thus a " terra sigillata " was made in Cilicia (Silesia), also in several districts of Italy, in Malta and in Palestine. In England a clay was found which was said to have the same properties. It entered into the composition of many important remedies, including the Theriaca of Andromachus,

and was regarded generally as being an antidote against all deadly poisons.

On analysis made some years ago "terra sigillata" was found to consist of oxides of iron, aluminium, and magnesia, with a proportion of silicates. The whole formed an astringent and absorbent earth, its chief virtues probably being, like many other ancient remedies, chiefly due to the mystery surrounding its origin and the superstition connected with its source.[1]

A curious account of how its value was once tested is recorded in the following grant dated 1580, made by Prince William, the Landgrave of Hesse, to Andreas Bertoldus of Oschatz :—

Be it knowen unto all persons, that an honest man called Bertold of Oschatz, came into the presence of the most noble Prince and Lord, the Lord William Landgraue of Hesse Court of Catzenelnbogen Ditz, Ziegenheim and Nidda etc., our gracious Lord and prince, and in humble manner declared unto him, that hee had found in an olde mine of Golde within the dominion of Schneidnitz, a new kinde of earth, which is a present help and a most notable remedie against all manner of poysons and sundrie diseases, which earth having a stampe upon it he offered to sell unto his Excellencie : who not trusting the man upon his bare worde, committed the matter to his Phisitions Maurice Thauern, and Laurence Hyper : Commanding them to make a perfect tryall of the saide earth, whereupon the saide Doctors in Phisicke to satisfie their Prince, did make a double proffe of the deadliest poysons that might be, which were, Mercurie Sublimate, Aconitum, Nereum and Apocinum, and of some one of these they gave halfe a dramme a peece to eight dogges, to four of them they gave the earth, after the poyson, and to the other foure the poyson alone : of these foure that tooke it alone, the first that tooke Apocynum : dyed within halfe an houre, the second that has taken Nereum died within foure houres : the third that swallowed Mercurie, died within nine houres after. And although they all did call up some part of the poyson, yet after most cruell tormentes with crampes and trembling they died : the fourth dogge that eat Aconitum,

[1] See "Terra Sigillata, a famous Medicament of Ancient Times," C. J. S. Thompson, *Proceedings 17th International Congress of Medicine*, London, 1913.

systeyned thirteene great panges of the crampe, so as every man thought hee woulde have died with his fellowes, yet lived he the first day, and having half of the dose of this medicine given him, he thoroughly recovered. The other foure dogges to whom the poysons before named with the like quantities of this Terra Sigillata was given, for three houres after the receiving of it, were very sicke and feeble, especially one of them to whom the double quantitie of Aconitum by negligence was given, vomited thrise : the next day they were all well and did eate their meate greedily, so as there appeared scarse any token of poyson.

When thus his Highnesse had seene the experience of this earth to bee so present a remedie against such deadly poysons, and that the saide Andrew Bertold had humbly craved his letters of credite, both in the favour of man and advancement of the truth, that others might have knowledge, he denied not to graunt them : But commanded that his letter, testimonial sealed with his Highnesse his privie seale, and subscribed with the handes of the foresaid Doctors, in whose presence this triall was made, should be given unto him. Which we the above named Doctors upon our allegiance to his Highnesse, and for the furtherance of the truth, because we found it as hath beene declared to be true and unseyned, most willingly have done. Given the XXVIII of July, the yeare of our Lorde 1580.

MAURITIUS THAUER, D.
LAURENCIUS HYPERIUS, M.D.
IOHAN KRUG.

Another document regarding a trial of the " terra sigillata " is as follows :—

A copie of the Letters Pattents which the noble earle Wolfgan earle of Holenhoe, Lord of Langenburg, etc. Had graunted to Andrewe Bertolde Oschatz, in witnes of the wonderful vertues of the Terra Sigillata, found latly in Germaine which hath been tried to be an approved medicine against the strongest poysons, and sundrie other grieues : faithfully translated out of the Germaine Originall.

We Wolfgangus, Earle of Holenhoe, Lorde of Langenburge Hc. Do openile make known unto all men by these my Letters, Testimoniall, that there came lately before me at Langenburge, my well-beloved friende Andreas Bertoldus of Oschatz, and declared unto mee that he had a most excellent kinde of Terra

Sigillata, which was not al onely of great force against sundrie diseases: but also a most undouted remedie against all manner of venemous poisons, as had beene proved by sundrie witnessess upon a great number of dogges, which made me also desirous to see the triall of it. It happened at the same time, that one called Wendel Thumblardt was by our Lieuetenant of Langenburg for certain felonies imprisoned, who being examined by our Justices, confessed himselfe guilty of a great number of robberies: And therefore brought to the barre was condemned to bee hanged. Being yet detained in prison, and coming to his eare that there was such a medicine, so soueraigne against sundrie sicknessess, and the most deadly poisons, he made humble request as well by his parents, as by other his friends, of which there were present no small number, desiring for the mercie of God, and respect of his poore life, that being thus condemned, he might have given unto him the most deadly poison that might be devised, whereby a perfit triall might bee had of the worthiness of this medicinable earth. And in this respect, not onely for this pittiful request of his: but also for the commoditie and benefite of all Christendome, (if so be the medicine proove answearable to the report) Pardoning the offender, wee graunted his life on that condicion. Therefore the day of the date of these present, and our welbeloved Cosin the Countie George Friderick of Holenhoe, and the Lord of Langenburg, and in the presence of all our Nobilitie and Commons, the said patient received a dram and a halfe of Mercurie Sublimate, mingled with Conserue of Roses, and immediately after it he drank a dram of the Terra Sigillata in olde wine. And albeit the poison did in the judgment of our learned Phisition George Pistor Doctor of Phisicke, and John Lutzen our Apothecarie, who were both by him all the while, extremely torment and vexe him: yet in the end the medicine prevailing overcame it, whereby the poore wretch was delivered, and being restored to his health was commited to his parents. Whereas therefore the foresaid Andrew Bertold, hath humbly required to have our Letters Testimoniall for his farther credite, wee have thought good for the furtherance and advancement of the truth, to graunt him these our Letters, signed with our seale Manuell. Given at Langenburg the 25th of Januarie, in the yeare of our Lord, 1581.

Petrus Oponus or Petri de Abano (1250–1303), so called from his birthplace, Abano, wrote a work entitled "De Remediis

Venenorum " in the thirteenth century in which he gives the following poisons known in his time, many of which, however, are innocuous. He mentions mercury, gypsum, copper, iron rust, magnetite (magnetic stone), lapis lazuli, arsenic sublimate, litharge, lead, realgar, cateputia juice, cucumber juice, usnea, coriander juice, mandragora, poppy, opium, scammony, aconite, oleander juice, hellebore juice, mezereon juice, fool's-parsley, briony, nux vomica, colocynth, laurel berries, poppy, cicuta, serpentary and cantharides.

Certain charms were believed to act as antidotes to poison and the two following quotations are taken from a MS. by Petrus Hispanus (Pope John XXI) in the fourteenth century :—

CONTRA VENENUM

" Scribe nota nostra i lamina loctonus ut aliò quoque comodo et lana et dari biber et abent scribi cum moro ut cumque nio alio nota sit nota et sine scripta 7 lineis past."

" Zaare. Zaare Zaam, Zaare
Zaare ssleqer Bohorum, nabarayn
Uessally—uessredaza—asseyan—Haurahe
reamue—ayn latinume quene :
draytery, nuyyeri, quibari, yeh ay
hahanny ymkatrum hanitanery vnerym
caruhe tahuene cehue beyne
et Lana cuz aqua . . . dame bibere."

The so-called Toadstone has from early times been reputed to possess the property of counteracting the effect of poisons. These stones were believed to be found in the heads of old toads which, when caught, were placed on a red cloth and the stone recovered through the mouth. Pomet, who wrote in the seventeenth century, threw doubt on this source of origin and states that " toad stones are found in the mountains or plains, although he would not dispute that they might have been bred in the heads of old toads." He describes two kinds, " the round and the long : the former being of a deep grey inclining to blue ; the long being redder grey with reddish spots. It is false that they change colour and

sweat when they approach the cup wherein there is poison."

Lemery, a French writer of the same period, in describing these stones, states, that when applied to the sting or bite of venomous beasts, they draw out the poison. They were usually set and worn as rings and regarded as of great value. They were generally mounted so that the back of the stone could touch the skin, and were said to notify the presence of poison by producing a sensation of heat in the finger at the point of contact.

A toadstone ring is described by Jones, which he attributes to the fossil palatal tooth of a species of Ray that is believed to be a specific in cases of kidney disease when immersed in water and drunk by the patient. In the inventory of the Duc de Berry mention is made of a toadstone in a ring of gold, and similar rings are alluded to in the records of the Duke of Burgundy.

Fenton, writing in 1569, says, "Toadstones being used in rings, give forewarning of venom"; and in Ben Jonson's "Fox" they are referred to as follows:—

> "Were you enamoured on his copper rings,
> His saffron jewel, with the toadstone in't?"

Lupton, in his *Thousand Notable Things*, goes as far as to give a method of obtaining the stone from the toad:

"Put a great or overgrown toad (first bruised in divers places) into an earthen pot; put the same into an ants' hillock, and cover the same with earth, which toad at length the ants will eat, so that the bones of the toad and stone will be left in the pot."

Another writer, however, states that the stone should be obtained while the toad is living, and this may be done by simply placing him upon a piece of scarlet cloth, "wherewithal they are much delighted, so that, while they stretch out themselves as it were in sport upon that cloth, they cast out the stone of their head, but instantly they sup it up again, unless it be taken from them through some secret hole in the same cloth."

The scarlet cloth, however, did not always perform this miracle, for Boetius relates how he watched a whole night an

old toad he had laid on a red cloth to see him cast forth the stone, but the toad was stubborn, and left him nothing to gratify the great pangs of his whole night's restlessness.

In the Wellcome Historical Medical Museum there is a toadstone mounted as a ring in bronze gilt of the seventeenth century; and the Londesborough Collection included a specimen described as being of metal gilt, having upon it the figure of a toad swallowing a serpent Another set with a large greyish-brown stone mounted in silver bears an inscription on the inside of the ring, "God cureth me."

The so-called horn of the unicorn, which was in reality the tusk of the narwhal, has been associated with mysterious properties since the time of Aristotle, Pliny and other ancient writers. Ctesias (about 390 B.C.) was the first to record the wonderful properties attributed to it. "Drinking vessels," he says, "were made of the horn and those who used them were protected against poisons, convulsions and epilepsy, provided that, just before or just after taking poison, they drank wine or water from the cup made from it. Other writers declared that poisoned wounds could be cured by merely holding the horn of the unicorn close to the wound.

These horns were considered of great value and in the Middle Ages are said to have been worth about ten times the price of gold. In 1553 a unicorn's horn was brought to the King of France which was valued at £20,000 sterling, and one presented to Charles I, supposed to be the largest then known, measured seven feet long and weighed 13 lb.

Edward IV gave to the Duke of Burgundy a gold cup set with jewels, with a piece of unicorn's horn worked into the metal; and one large horn in the possession of the City of Dresden was valued at 75,000 thalers. A piece was occasionally sawn off to be used for medicinal purposes, and it was a city regulation that two persons of princely rank should be present whenever this operation was performed.

In the sixteenth century these horns were so rare that Dr. Racq, a physician of Florence, recorded that a German merchant sold one of them to the Pope for 4,000 livres. Ambroise Paré wrote a treatise on the unicorn's horn and its remedial properties, and Thomas Bartholinus published a work on

" Observations on the Unicorn Horn " in 1678, dealing with its medical uses only.

Although it was considered of such great value, the horn was utilized for making goblets mounted in gold, and walking sticks, to which were ascribed remarkable virtues, the greatest of which, according to writers on natural history of the time, was its " resistance to all manner of poysons."

Before the seventeenth century the genuine unicorn's horn was supposed to be black or dark in colour, and Boetius de Boodt records that he saw a horn in Venice at the close of the sixteenth century which was said to be a genuine unicorn horn, but he believed it to be that of a gazelle. However, in the seventeenth century it came to be universally agreed that the genuine so-called unicorn's horns were long, and of an ivory-like colour, tapering towards the tip with curling staves. Several of these horns are still kept among the treasures in churches and monasteries in Europe. One of the more famous and frequently mentioned is the horn that was preserved in the Monastery of St. Denis, near Paris. Cardanus, who described it in the sixteenth century, added that he saw it when he visited the monastery while on a journey in France. He states " it was so long that he could not reach the tip when he placed it at his side ; it was not particularly thick, becoming gradually thinner towards the tip and curling like a snail's shell. The colour was that of a hartshorn."

This horn was greatly venerated and was included in the inventory of treasures consisting of gold and precious stones and holy relics of the monastery. Two unicorn's horns were preserved at St. Mark's in Venice, and in the sixteenth century were exhibited to the people once a year on Ascension Day, together with the other treasures of the Duomo.

There is frequent mention in records of ducal cups of unicorn's horn which were used as drinking vessels by those whose lives were sought by poisoners. The effect of the poison was believed to be neutralized on coming into contact with the horn. A cup of this kind is preserved at Rosenberg which dates from the early part of the seventeenth century.

Gesner states that the rich put a piece of horn in their cups to protect themselves and to cure themselves, " but it must be

a fresh piece and not one the properties of which have been exhausted by often being placed in drinks. It loses its virtue like plants do."

Pomet, writing in the seventeenth century, says: "We ought to undeceive those who believe what we now call the unicorn's horn was the horn of a land animal whereof mention was made in the Old Testament, since it is nothing but the horn of the Narwhal and, as to the choice of it, ought to be the whitest, largest and finest."

It is recorded in 1650 that a certain well in Venice was remarkable for its fresh water on account of two pieces of unicorn's horn being concealed at the bottom.

In all probability horns were used in early times as drinking vessels, not only on account of their suitability in shape, but also with the idea that they could impart their supposed health-giving properties to the liquid placed in them.

In Denmark, in the seventeenth century, unicorn's horn was sold in the apothecaries' shops and was much esteemed by Danish physicians on account of its medicinal properties. In 1593 there is a record that some physicians in Vienna in order to prove the efficacy of unicorn's horn as an antidote to poisons, experimented on a dog who was first given a dose of arsenic followed by one of unicorn's horn, and the dog subsequently recovered, while dogs to which arsenic had been given alone died from the effects. Similar tests were said to have been carried out in Copenhagen in 1636, as the result of which it was recorded that "unicorn's horn is an antidote against poisons, just as those seen at Paris and elsewhere."

On October 31 of that year, Drs. Fincke, Worm and Scheele met in the house of an apothecary called Johannes Woldenberg in Copenhagen and undertook the following experiment. Two pigeons and two cats were dosed with arsenic and corrosive sublimate. Unfortunately for the experiment, the pigeon which received both the poison and the antidote of unicorn's horn, vomited the latter and died some hours afterwards. The cat which was given sublimate but no antidote, is said to have died after a short interval, while the cat which in addition to the poison was given a small dose of unicorn's horn lived until the middle of the night. These and similar attempts

to prove the value of the horn were made in Europe during the seventeenth century. It was said to be efficacious in plague and fever because they had certain symptoms in common with those produced by poisons and were called "poisonous diseases."

The Coronation Chair of the royal house of Denmark in the seventeenth century was partly composed of unicorn's horns, which are said to have been used on account of their great value, and as being more precious than gold. The making of this curious chair was commenced by Frederick III, "the columns supporting it being composed of narwhal's teeth and the chair covered with the horn wherever possible, the same being used for the supports for the arms." In the time of Frederick III and Christian V this chair was considered one of the most wonderful and valuable objects in the kingdom, and was celebrated both in history and story. On June 7, 1671, Christian V in magnificent robes was crowned in it, and the feet of the throne were guarded by two silver lions. The bishop who crowned the king in the Castle of Fredericksborg in his address said, "Of mighty King Solomon, history bears witness that he built a throne of ivory and covered it with the finest gold; Your Majesty is also sitting on a costly throne which in the glory of its material and shape is like unto King Solomon's throne, and the like thereof cannot be found in any kingdom."

From a time of great antiquity, the horn of the Indian rhinoceros has been reputed to possess the power of absorbing poisonous substances brought into contact with it.

The Chinese fashioned these horns, which they still value very highly, into cups which are sometimes ornamented with beautiful carving. The tradition in China concerning the horn was, not so much that it acted as an antidote to poison, but that it gave a sure indication when any liquid placed in it contained some poisonous substance. When a poisoned liquid was allowed to stand in the horn the latter was said to sweat and change colour. It is not therefore to be wondered at that the great emperors of the East, whose lives were frequently attempted by poison, chose these horns as drinking cups.

Rudolf II of Germany (1575–1612) fashioned a cup of

DRINKING CUP OF UNICORN'S HORN
(XVII CENTURY).

[*Copyright to the Wellcome Historical Medical Museum.*

ASSAY CUPS OF RHINOCEROS HORN USED TO DETECT POISON
IN WINE (XVITH CENTURY).

rhinoceros horn for his own use, which is now preserved in the National Museum at Copenhagen. Several other vessels of rhinoceros horn are mentioned in Danish records, one being described as "a little flat dish of rhinoceros horn with a gilt foot and then gilded, with an Indian underneath."

Lemery says: "The horn and nails of the animal are both used in medicine and contain in them a good deal of volatile salt and oil which are useful to resist poison."

Pomet declares that "the horn is highly alkalescent and is also good against malignant fevers and destroys malignant acids which stir up the most pernicious diseases."

There have been certain periods in the world's history when every eminent personage, king, prince, minister or favourite, was deemed in danger of poison, and when not a particle of food was swallowed by them until it had been first tasted.

The traditions attached to the horn of the rhinoceros must have come to Europe at an early period, as we find that cups made from the horn, called "assay cups" were used in England as early as the fifteenth century in the time of Edward V.

The earliest allusion to the assay cups, which were made both from the horn of the rhinoceros and the unicorn, is in Russell's *Book of Nurture*, 1480, in which it is stated:—

> "Credence and tastynge is used
> for drede of poysenynge
> to all officers ysworne and grete
> othe by chargynge."

It was customary for the esquire in attendance on a distinguished person to first test the wine by drinking some from his assay cup. Hall, in his Chronicle (1550), refers to this custom as follows:—

"The esquier whiche was accustomed to sewe and take the assaye before kyng Rychard."

"The Maior of London claymed to serue the quene with a cuppe of golde and a cuppe of assay of the same."

Gutch in 1530 alludes to

> "Two little Cuppis of asseye silvar and gilt."

An assay cup of rhinoceros horn with a silver rim about

1½ in. deep, with a bishop's mitre and the initials T.T. crudely engraved upon it, is in the Wellcome Historical Medical Museum with other specimens of the kind. It is believed to date from the middle of the sixteenth century.

On account of its association with medicine, the rhinoceros was adopted as the crest of the Apothecaries' Society of London when it was founded in 1617.

The Chinese, who appear to have ever been suspicious of being poisoned, also made little cups of glass about 1½ in. high which they believed would crack if a poisoned liquid were poured into them.

There is an early tradition in India connected with bowls of pottery with a light greenish glaze, called Gherian ware. They are supposed to break into pieces if touched by poisoned food or liquid, and are said to have been introduced into Northern India by Mohamed Ghori in the twelfth century from whom they take their name.

Another substance which was regarded with great veneration as an antidote to poisons, especially in the East, was the bezoar stone, a calculus found in the intestines of Persian wild goats, cows, a species of ape and other animals. These stones vary much in size from that of a small egg down to a hazelnut, and are of a yellowish brown colour.

Pomet says, "If you would have the finest and best oriental bezoar, you must choose that which is shining, of a pleasant scent, tending to that of ambergris. The shape is of no consequence, whether round, smooth or rough, and whether white, yellow or grey, but the principal colour is usually an olive."

It was introduced into Eastern medicine by the Arabs, but its reputation is of much greater antiquity. The name is said to be of Persian origin and derived from the word "pad-zahr," "an expeller of poisons," and is mentioned first by Avenzoar, an Arab physician of Seville, about the year A.D. 1140.

It was known to the Hebrews in ancient times as "Bel Zaard" which means the "Master," or "every cure for poisons."

There are several varieties of these stones, the most esteemed being the Oriental, which come from Persia. On dividing the calculus, it appears to have been formed by a deposit of calcium

Oriental Bezoar.

Oriental Bezoar.

Occidental Bezoar.

BEZOAR STONES.

phosphate round some nucleus, such as hair or the stone of a fruit. One that is still preserved in the Museum of St. Bartholomew's Hospital has a date stone as the nucleus. It was believed that the special virtues of the stone were due to some unknown plant on which the animal had fed.

The Occidental, another variety of bezoar stone, is said to be obtained from the llamas of Peru, and a European variety is got from the chamois of the Swiss mountains, but these varieties never commanded the great value as did those from the Orient, which are said by early writers to have been sold for ten times their weight in gold. The Occidental bezoar stone is usually much larger than the Oriental and has a dull surface.

Lemery mentions a bezoar stone obtained from the hog, which is of a whitish colour inclining to green. It is said to be produced in the gall of certain swine in India and is very highly esteemed by the natives.

All varieties of bezoar had a reputation for counteracting the effects of poison. They were generally preserved in elaborate cases of pierced gold with a chain attached so that they could be suspended in the wine or liquid before it was drunk. "The Portuguese above all nations," says a writer of the seventeenth century, "drive a great trade with bezoar, because they are always on their guard and watching one another for fear of poison."

As well as an antidote to poison, the bezoar came to be regarded as a valuable remedy for fevers and was also applied externally in skin diseases. It was given internally in doses of 4 to 16 grains and, in Portugal, in time of plague, the stones were loaned to sufferers at about the equivalent of 10*s*. a day.

Three bezoar stones were sent by the Shah of Persia, as a royal gift, to the Emperor Napoleon a little over a century ago.

Ambroise Paré, when surgeon to Charles IX of France, relates that one day, when the king was at Clermont, a Spanish nobleman brought him a bezoar stone which he assured him was an antidote to all poisons. The king sent for Paré and asked him if he knew any substance which would annul the effects of any poison. Paré said that could not be, for there were many sorts of poisons which acted in very different ways.

The Spanish nobleman, however, maintained that this stone was a universal antidote and as the king was eager to test the question, the Provost of the Palace was sent for and asked if he had any criminal in his charge condemned to death. He replied that he had a cook who had stolen two silver dishes, who was to be hanged the next day. The offer was thereupon made to the cook that he should take a poison and the alleged antidote immediately afterwards, and if he escaped with his life he should go free. The cook gladly consented, and an apothecary was ordered to prepare a deadly draught and administer it, to be followed by a dose of the bezoar. This was done. The poor wretch lived for about seven hours in terrible agony which Paré tried in vain to relieve. After his death Paré made an autopsy which showed that the antidote had no effect at all. It was sublimate which had been given. "And," the writer concludes, "the king commanded that the stone should be thrown into the fire; which was done."

A stone called Draconites, described by Albertus Magnus (1193–1280) as a shining black stone of pyramidal shape, was also believed to be antidote to all kinds of poisons.

A cup or goblet made of electrum, an alloy composed of gold and silver known to the ancients, according to Pliny, had the property of revealing any poisonous liquid which was placed in it, by exhibiting certain circles like rainbows in the liquid, which it also kept sparkling and hissing as if on fire.

CHAPTER V

SUPERSTITIONS CONNECTED WITH POISONOUS PLANTS

MANY strange superstitions are associated with certain poisonous plants which have been handed down to us from past ages. The mysterious properties, especially of those which caused sleep or by supposed magical powers concealed in them produced delirium, were attributed by the ancients to a spirit or demon which dwelt in the roots of the plants, and various rites and ceremonies were connected with their gathering. The real cause of their physiological effect on the body was of course unknown, but the narcotic effects which from experience were found to produce insensibility, dreams, and frenzy made a deep impression on the mind.

The hallucinations of the witches which we read about in the Middle Ages, may be compared with those of the medicine-men of many savage tribes to-day. In all probability they were not entirely fictitious, but these effects were produced by the taking of various drugs which had the effect of causing hallucinations and temporary insanity. Weak-minded women, who probably formed the greater part of the class known as witches, made use of an unguent with which they anointed themselves in preparation for the so-called "witches' Sabbath." Johannes Wierius, who was a witness of such a gathering, recorded in 1566 the composition of the witches' ointment and states it contained such powerful narcotic poisons as mandrake, belladonna, henbane and stramonium. The absorption of this unguent was followed by unconsciousness and sleep, and on being awakened the person so anointed was fully assured that she had visited the "Sabbath."

The frenzies into which the sorcerers of the Middle Ages

worked themselves may also no doubt be attributed to the action of various substances with similar properties.

There is probably no plant around which clusters more legendary lore and tradition than the mandrake (*Atropa mandragora*). Sufficient has been recorded about it to fill volumes, and between the years 1510 and 1850 no less than twenty-two treatises are known to have been written on the subject.

It was known to the Babylonians over 3,000 years ago, and their women carried a mandrake root as a charm against sterility. The ancient Egyptians called it "The Phallus of the Field" and held it in the highest esteem. The Greeks surrounded it with strange traditions, and in Eastern Europe, Arabia, Palestine and Syria, it has been associated with mysterious rites and customs from time immemorial.

Theophrastus (300 B.C.) the earliest writer on botany, alludes to the mandrake and records its property of inducing sleep and its use in the composition of love philtres. Demosthenes, the Athenian orator, is stated to have compared his lethargic hearers to those who had eaten it. The early Greeks bestowed on it the name of Circeium, derived from the name of the witch Circe, as they believed that an evil spirit dwelt in the root. Pliny, in alluding to the mandrake, states that "he who would undertake the office of uprooting it should stand with his back to the wind, and before he begins to dig make three circles round the plant with the point of a sword, and then turning to the west proceed to dig it up." In other countries the gathering of the root was believed to be attended with great danger to the individual who was sufficiently daring to pull it from the ground.

The Greeks believed that when dragged from the earth the root gave a dreadful shriek and struck dead the person who had the presumption to pull it up. They therefore adopted the following ingenious method of obtaining it. A dog was allowed to fast, and was then brought near the plant round which was fastened a cord, the end of which was tied to the tail of the dog. The gatherer would then place some food within a few feet of the hungry animal, who in his struggles to reach it would uproot the plant and be killed by the evil spirit in consequence. At the moment of uprooting the

gatherer generally sounded a horn, which was supposed to drown the shriek of the demon that dwelt in the plant.

It is believed by some, that the mandrake is the plant alluded to in the Book of Genesis, which was called by the ancient Hebrews "Dudaïm," and is stated to have been found by Reuben, who carried it to his mother. The inducement which tempted Leah to part with it proves the value set upon the plant at this time. Maundrell found it used in the neighbourhood of Aleppo as described in the Bible and states that the Arabs call it "tuphac el sheitan." The Greeks sometimes alluded to Venus as Mandragoritis and the fruit of the plant was popularly termed "place of love." Pythagoras calls the mandrake "Anthropomorphum," and Columella terms it "semihomo."

Dioscorides refers to it in the first century, and mentions that it is used for love charms and philtres. In the earliest MS. of his work, written in the fifth century, and which is still preserved in Vienna, there is a drawing in colour depicting Euresis, the goddess of discovery, presenting the author with a mandrake root. The root is in human form with five leaves growing out of the head, and near by on the ground is a dog in the agonies of death.

Josephus records the custom in a Jewish village of pulling up the root by means of the dog, which was killed by the shriek from the demon which resided in it. This tradition appears to have been attached to the gathering of the mandrake in nearly every country where it was grown.

Many of the traditions and superstitions connected with the plant appear to have arisen from the curious natural shape of the root, which often bears a strong resemblance to the human form. This similitude was turned to account by those who dealt in the plant, as they found they obtained a greater value after manipulating it to make the features and limbs more perfectly resemble a man or a woman.

Beyond the effects attributed to it by tradition, the mandrake has undoubted powerful narcotic properties. Its active principle, discovered by Ahrens, is called mandra-

gorine, and is said to be a mixture of bases of which hyoscyamine is the chief, mixed with scopolamine. The ancients attributed powerful aphrodisiacal virtues to the root and claimed that it could produce a condition of sexual excitement which was often attributed to natural and magical powers, and for this reason included it in the composition of their love philtres. It was among the more important narcotic drugs employed by the ancients for producing anæsthesia, and Dioscorides gives the formula for a wine made by infusing the root in Cyprus wine, which was directed to be administered before amputation of a limb or before the application of hot cautery.

Pliny remarks that mandrake "is taken against serpents and before cutting and puncture, lest they be felt. Sometimes the smell is sufficient," and Apuleius, writing in the second century, claims that half an ounce with wine is sufficient to make a person insensible, even to the pain of amputation.

Lyman believes it was mandragora wine mixed with myrrh that was offered to Christ on the Cross, as it was commonly given to those who suffered death by crucifixion to allay in some degree their terrible agonies.

In Shakespeare's time the mandrake still kept its place in estimation as a narcotic. Thus we have Cleopatra asking for the drug that she may "sleep out this great gap of time," while her Antony is away, and Iago, whilst the poison begins to work in the mind of Othello, exclaims

> "Not poppy, nor mandragora
> Nor all the drowsy syrups of this world
> Shall ever medicine thee to that sweet sleep"

In the sixteenth century the Germans called these human-like roots Abrunes or Alraun, considering them very valuable and treating them with the greatest veneration. After fashioning them as near as possible to the form of a man or woman, they dressed them every day and consulted them as oracles. They were introduced into England in the time of Henry VIII, and met with ready purchasers. To increase their value and importance, the roots were said by the vendors to be produced from the flesh of criminals

which fell from the gibbet, and that they only grew beneath the gallows :—

Lord Bacon notices their use in the following words :—

" Some plants there are, but rare, that have a morsie or downie root and likewise that have a number of threads like beards, as mandrakes, whereof witches and impostours make an ugly image, giving it the form of a face at the top of the root, and these strings to make a broad beard down to the foot."

Madame de Genlis states that " the mandrake roots should be wrapped in a sheet, for that then they will bring increasing good luck."

The plant is still used medicinally in China, where it is said to be largely used by the Mandarins, who believe it will give them increased intellectual powers and prolong their lives.

The origin of Alraun, the German name for the mandrake root, has been variously explained. Tacitus speaks of a formidable people among the Germans called Aurinia, believed to be endowed with magical powers, and " some attribute Allrun to their name on account of their use of the plant in sorcery. They are the same of whom Aventinus speaks as loose-haired, bare-legged witches who would slay a man, drink his blood from his skull and divine the future from his mangled remains." There is some reason to believe, however, that the word is simply a later form of the Gothic Allrune, and that it is related to rune. The French word Mandragloire is simply a part of the Greek word Mandragora, blended with the name of the old French fairy Magloire. In Germany and France the superstition took the following form. The mandrake was said to spring up where the presence of a criminal had polluted the ground. It was sure to be found near a gallows, and so was popularly called in Germany Galgemännlein. It was to be obtained generally in the way described by Josephus, but, it was added, one must sign the cross three times over the plant before pulling it up. Having got the root it must be bathed every Friday, kept in a white cloth in a box and then it would procure manifold benefits. There is a letter still preserved from a burgess of Leipzig to his brother at Riga written in 1675, which shows the popular

notion of the mandrake at that time and its various names. It reads :—

" Brotherly love and truth and all good wishes to thee dear brother. I have thy letter and have made out from it enough to understand that thou dear brother in thy home affairs hast suffered great sorrow ; that thy children, cows, swine, sheep and horses, have all died ; thy wine and beer soured in thy cellar, and thy provender destroyed and that thou dwellest with thy wife in great contention ; which is all grievous to hear. I have therefore gone to those who understand such things to find what is needed and have asked them why thou art so unlucky. They have told me that these evils proceed not from God but from wicked people ; and they know what will help thee. If thou hast a Mandrake (Allruniken oder Erdmannikin) and bring it into thy house, thou shalt have good fortune. So I have taken the pains for thy sake to go to those who have such things and to our executioner have paid 64 thalers and a piece of gold drinkgelt to his servant, and this (Mandrake) dear brother I send thee, and thou must keep it as I shall tell in this letter. When thou hast the Erdman in thy house let it rest three days without approaching it ; then place it in warm water. With the water afterwards sprinkle the animals and sills of the house going all over, and soon it shall go better with thee and thou shalt come to thy own if thou serve Erdmannikin right. Bathe it four times every year and as often wrap it in silk cloth and lay it among thy best things and thou need do no more. The Bath in which it has been bathed is especially good. If a woman is in child pain and cannot bear, if she drinks a spoonful she will be delivered with joy and thankfulness. And when thou goest to law put Erdman under thy right arm and thou shalt succeed whether right or wrong. Now dear brother this Erdmannikin I send with all love and faith to thee for a happy new year. Let it be kept and it may do the same for thy childrens children. God keep thee— Leipzig, Sunday before fastnight, 75 Hans, N."

It is certainly remarkable that in 1675 so much as seventy-five thalers could be obtained for one of these little figures, but is probable that the dealing in them had become very secret on account of the danger incurred of being suspected of witchcraft. In 1630 three women were executed in Hamburg on this account. Matthiolus, in his commentary on Dios-

corides, describes the great ingenuity which had been reached in the carving of the root into the human semblance and the training of little shoots from seeds planted in it which were manipulated so as to look like hair The same ingenuity was employed to invest each figure with a marvellous legend of its origin or potency.

A haunted spot is shown in Lower Würtemberg where a merchant of Ulm tried vainly to get rid of his Galgemännlein, and for a long time a house stood in Frankfort which was avoided because it was related, that there a baker woman had perished horribly with a mandrake in her possession, which she had long tried to be rid of.

This diabolical phase of the superstition was especially strong in France and England. It was believed by many that Joan of Arc had one of the mandrake figures in her possession, and she was even asked by the judge at her trial whether this was not the case ; but she disclaimed any knowledge of the mandrake. At Romorantin, Margaret Ragum Bouchery, the wife of a Moor, was hanged as a witch in 1603, the charge against her being that she kept and fed daily a living mandrake fiend which was stated to be in the form of a female ape.

Superstitions concerning the mandrake were strong throughout the South of England, the belief being that it had a human heart at its root. It was believed that in some places it was perpetually watched over by Satan, and if pulled up at certain holy times and with certain invocations, the Evil Spirit would appear to do the bidding of the practitioner. In the mining regions of Germany the mandrake was supposed to reach down to the cobolds beneath the earth, and shrieked when it was torn up. In Silesia, Thuringia, the Tyrol and Bohemia, it is still connected with the idea of subterranean treasures, and in the Hartz, mandrake decoction is poured on animals to prevent swellings.

In 1429 the use of mandrakes as amulets was so general in France that Friar Richard furiously denounced them and vast numbers were burned. La Fontaine's fable "La Mandragore," copied from Machiavel's comedy of the same title, turns upon the supposed potency of the plant to produce children. The Tyrolese believe that it not only reveals

treasures, but prevents wicked possessions, and renders the possessor proof against blows. In the Alpine regions it is laid on the bed to prevent nightmare, and carried to secure the mountaineer against robbers and bad weather.

The mandrake is called in Iceland thjofarot (thieves' root) and is believed to spring from the froth of the mouth of one who has been hanged or the cairn where he has been buried.

In Kent the mandrake may be occasionally found kept by women to prevent sterility, and the superstition still survives in Greece, where pieces of the root are worn by young people as love charms. Mandrake roots are also carried in Syria and Turkey by women against sterility and are sold to-day in the bazaars of Constantinople.

Of the poisonous plants known to the ancients, aconite may rightly be claimed to be one of the most important. It has been called the "Queen Mother of Poisons" and has been a matter of comment and note by early historians for over two thousand years. Species of the plant were known as wolf's bane, leopard's bane, and women's bane. Its root was compared by some of the ancient botanists to sea crabfish, by others to a scorpion; "for," says one writer, "the root doth turn and crook inward in manner of a scorpion's taile." Various origins are given to the name aconite; some attribute it to the fact that it grows quite naturally upon bare and naked rocks, which the Greeks call Aconas. Theophrastus says the name is derived from Aconæ, "a certain towne, neer to which it groweth abundantly." It is also said to have been derived from the Greek word for javelin or arrow, because "some barbarous nations employed the juice to poison their arrows and spears."

In ancient times apparently quite a number of poisonous plants were described under the name of aconite, as well as the *Aconitum napellus*, the species now employed in medicine. Its deadly effects are alluded to by Ovid, Virgil and Juvenal. Plutarch, in referring to the death of Orodes, says: "He fell into a disease that became a dropsie after he had lost his son Pacorus who was slain in a battle by the Romans. Phraates, his second son, thinking to set his father forwards gave him a drink of the juice of Aconitum. The dropsie

received the poison and the one drave the other out of Orodes' body and set him on foot again."

Hanbury says the ancients were well aware of the poisonous properties of aconite, though the various species were not more exactly distinguished until the close of the Middle Ages. It was used by the Chinese in ancient times and is still employed by the less civilized of the hill tribes of India as an arrow poison. It is said also to have been used for the same purpose by the aborigines of ancient Gaul. It is mentioned in the well-known ancient Welsh MS. of "The Physicians of Mydd-vai," written in the thirteenth century, as "one of the plants that every physician is to grow."

Matthiolus, in his commentary on the Materia Medica of Dioscorides, relates the results of certain experiments carried out by order of Pope Clement VII, on the persons of two criminals condemned to death, for the purpose of testing the value of an antidote to aconite, which he describes as the most deadly of all known poisons. One of the criminals was used as a test and the other for control experiment.

The root, which contains the largest proportion of the active principle called aconitine, has often caused fatal results in being mistaken for that of horse-radish. It had rarely been used for criminal purposes until Lamson in 1881 employed the alkaloid to take the life of Percy Malcolm John. In connection with aconitine it is related that Christison, the famous toxicologist, who was professor of Medical Jurisprudence at the University of Edinburgh, when giving evidence in a certain case as to the recognition of poisonous substances sought for in the body after death, said to the judge, "My Lord, there is but one deadly agent of this kind which we cannot satisfactorily trace in the human body after death, and that is—" when the Judge sharply interrupted him with, "Stop, stop, please, Dr. Christison. It is much better that the public should not know it." Years afterwards it was vividly recalled to the memory of his then student class, that Lamson, who was a member of his audience as a medical student, and exceptionally assiduous in note-taking, was present on one of the occasions when Professor Christison was explaining to his class that the real name of the poison

which the Court had prevented him from naming was "aconitine."

It is satisfactory to record that toxicology has advanced since the days of Christison, for Sir Thomas Stevenson, who gave evidence for the Crown at Lamson's trial, was able to prove by clinical tests that the boy John had been poisoned by aconitine, and his murderer, Dr. Lamson, suffered the extreme penalty of the law.

The aconite now used for medicinal purposes is derived from the *Aconitum napellus*, chiefly grown in Britain. It is also found in the mountainous districts of the temperate parts of the northern hemisphere. It grows on the Alps, the Pyrenees, the mountains of Germany and Austria and also in Denmark and Sweden. On the Himalayas it is found at 10,000 to 16,000 feet above the sea-level. Both the root and the leaves are used medicinally. Aconite contains several alkaloids, all of which are powerful poisons, the chief of these being aconitine—one of the most deadly poisons known—the fiftieth part of a grain of which has nearly caused death. Indian aconite known as "Bish" is chiefly derived from *Aconitum ferox*—a native of high altitude in the Himalaya regions—and is mentioned by the Persian physician, Alhervi, in the tenth century, and also by many early Arabian writers on medicine. Ali Ben Isa pronounced it to be the most rapid of deadly poisons, and describes the symptoms with tolerable correctness. The chief symptoms of poisoning by aconite are heat, numbness and tingling in the mouth and throat, giddiness, and loss of muscular power. The pupils become dilated, the skin cold and pulse feeble, with oppressed breathing and dread of approaching death. Finally, numbness and paralysis come on, rapidly followed by death in a few sudden gasps. The poison being extremely rapid in effect, immediate action is absolutely necessary to save life.

Several species of aconite grow plentifully in India, where it has been used for centuries. It is found growing, among other places, in the Singalilas, a mountain range which forms the watershed boundary between Nepal and British territory, north-west of Darjiling. *Aconitum palmatum* is collected in abundance at Tongloo, the southern termination of the Singalilas, but *Aconitum napellus*, which

is more poisonous, requires a higher elevation in which to thrive. The natives, especially the hill tribes, take aconite in the crude state as a remedy for various ailments, and every Bhotiah has a few dried roots put away in some secure corner of his hut.

Early in October, when the aconite root has matured, the collecting begins, and one of the leading men of the village organizes a party composed of both sexes. He, for the time, becomes their leader, settles all disputes and quarrels while out in camp, and, while keeping an account of general expenses, supplies to each all necessaries in the way of food. Before starting he has to obtain a 'permit' from the Forest Department, the charge for which is fifteen rupees. Carefully wrapping the permit in a rag and placing it in his network bag of valuables, he collects his band together, and they set out for the higher ranges. As soon as they arrive at the slopes where aconite is growing plentifully, they set to work to build bamboo huts about five feet high, roofing them with leaves. After the morning meal they all set off for the lower slopes, each with his basket and spade over his shoulder. But before the actual work is commenced, a ceremony has to be performed. The Bhotiahs, like the Nepalese, have a belief that the presiding demon of the hills imprisons evil spirits in the aconite plant, which fly out as soon as it is dug up, and inflict dire calamtiy on the digger. In order, therefore, to counteract this, every morning before the digging commences, the lama or headman, standing on a convenient hill with his followers around him, makes a fire and burns some dhuna, a native resin, then, inserting two fingers in his mouth, blows several shrill whistles. All wait in breathless silence till an answering whistle is heard, which may be an echo or the cry of some bird. Whatever it may be, it is taken as the dying dirge of the evil spirits, and digging begins at once.

The roots, after being shaken from the soil, are placed in the baskets, which on return to the encampments are emptied and formed into heaps, and covered with bamboo leaves to protect them from the frost. During the day they are spread out in the sun to dry. When a sufficient quantity has been collected and dried thus, bamboo frames are fixed up with a fire below, on which the aconite is placed when the flame has died out. The one who looks after the drying process has a cloth tied round his head covering the nose, as the constant

inhalation of the fumes causes a feeling of heaviness and dizziness in the head. This process is carried on three or four days until the roots are dried. When sufficient have been collected and dried they are packed in baskets. These are shouldered, and with their cooking utensils and blankets on the top, the whole band set their faces homeward. On arrival at the commercial centre at the termination of their march the results of the expedition are soon sold, and each man is handed his share of the profits, according to the amount of aconite he has collected.

Hemlock, or cicuta, was a classical poison well known to the ancients. References are made to it in Greek literature as early as the fourth or fifth century B.C. The old Roman name of Conium was Cicuta, but it was applied in the sixteenth century by Gesner to other varieties of the plant, such as *cicuta virosa*, which is of a non-poisonous nature. Its use by the ancient Greeks as a State poison has already been fully described in a preceding chapter. It was used in Anglo-Saxon medicine, and is mentioned in the vocabulary of Alfric as early as the tenth century. The name "Hemlock" is derived from the Anglo-Saxon words "hem," border or shore, and "leac." Its chief active principle, conine, is a colourless oily liquid, which resembles nicotine in its action. It is to Linnæus we owe the use of the classical Greek name *Conium maculatum* in 1737.

Another plant around which clustered many superstitions in ancient times was black hellebore, called Melampus root, or Christmas Rose. It is said to have taken its name from Melampus, a traditionary physician, who is said to have flourished at Pylus about 1530 B.C. He is reputed to have cured the daughters of Proetus, King of Argus, of mental derangement and leprosy with hellebore. Pliny states that the daughters of Proetus were restored to their senses by drinking the milk of goats which had fed on hellebore. Black hellebore root was used by the ancients to hallow their dwellings, and they believed that by strewing it about it would drive away evil spirits. This ceremony was performed with great devotion, and accompanied with the singing of solemn hymns. They also blessed their cattle with hellebore in the same manner to keep them free from the

spells of the wicked. For these purposes it was dug up with many religious ceremonies—such as drawing a circle round the plant with a sword; then, turning to the East, a humble prayer was finally offered up by the devotee to Apollo and Aesculapius for leave to dig up the root. The flight of the eagle was particularly attended to during the ceremony, for should this bird approach near the spot during the celebration of the rite, it was considered so ominous as to predict the certain death of the person who uprooted the plant in the course of the year. Others ate garlic previous to the rite, which was supposed to counteract the poisonous effluvia of the plant. Dioscorides relates that when Carneades, the Cyrenaic philosopher, undertook to answer the books of Zeno, he sharpened his wit and quickened his spirit by purging his head with powdered hellebore, and it is of this plant Juvenal sarcastically observes "Misers need a double dose of hellebore." It is stated that the Gauls never went to the chase without rubbing the point of their arrows with this herb, believing that it would render the game killed with them all the more tender.

Hyoscyamus, commonly called henbane, is a herb which has been employed in medicine from early times. Benedictus Crispus, Archbishop of Milan, in a work written shortly before A.D. 681, alludes to it under the name of hyoscamus and symphoniaca, and in the tenth century its virtues are recorded in the works of Macer Floridus. In the early Anglo-Saxon manuscripts it is called henbell and sometimes belene. In a French herbal of the fifteenth century it is called hanibane or hanebane. From ancient times it has been employed as a sedative and anodyne for producing sleep, although hallucinations sometimes accompany its use. Its chief active principles are hyoscyamine and hyoscine, both of which are very powerful poisons. An old tradition states, that once in the refectory of an ancient monastery, the monks were served in error by the cook with henbane instead of some harmless vegetable. After partaking of the dish they were seized with the most extraordinary hallucinations. At midnight one monk sounded the bell for matins, while others walked in the chapel and opened their books, but could not read. Others sang roystering drinking songs and

performed mountebank antics, which convulsed the others with uncontrollable laughter, and the pious monastery for the nonce was turned into a lunatic asylum.

There are few drugs used to-day with a more interesting history than opium. It figures not only in history but also in romance and crime. It has been associated with the acquisition of wealth and prosperity and with the most terrible degradation. Opium has been the cause of war, of bitter feeling and punishments, and whilst it has enslaved many with the most pleasurable hallucinations, and relieved the most agonizing pains, it is capable of reducing human beings to the level of the beasts.

It is mentioned in the Papyrus Ebers, one of the earliest known records of medicine, as having been known and used by the Egyptians about 1550 years B.C. It is described by Theophrastus as having been used by the Greeks 300 years B.C. and is supposed to have formed the chief ingredient in the potion known as "Nepenthe" which Helen of Troy gave to the guests of Menelaus to drive away their care. This conjecture receives support from Homer, who states that Nepenthe was obtained from Thebes, the ancient capital of Egypt. According to Prosper Alpinus, the Egyptians were practised opium eaters and were often faint and languid through the want of it. They prepared and drank it in the form of "Cretic Wine," which they flavoured and made hotter by the addition of pepper and other aromatics. Scribonius Largus (A.D. 40) mentions the method of preparing opium and points out that the true drug is derived from the capsules of the poppy and not from the foliage of the plant.

Dioscorides, in the same century, describes how the capsules from which the drug is collected should be cut and the milky juices collected, and one can infer from his statements that the collection of opium was at that time a source of industry in Asia Minor. Pliny gives an account of "opion," while it is also mentioned by Celsus, a Roman medical writer of the first century, and by several other Latin authors, who allude to it by the quaint name of "poppy tears."

It was well known to the Arabs, who transmitted their knowledge of its properties first to the Persians and then to other nations of the East. In India its introduction would

appear to be connected with the spread of Mahommedanism, and may have been favoured by their prohibition of the use of wine. The earliest mention of opium in connection with India occurs in the travels of Barbosa, who visited Calicut and the Malabar Coast in 1511, and who gives it a prominent place with other valuable drugs. Pyres, the first ambassador from Europe to China in 1516, speaks of the opium of Egypt, Cambay, and the kingdom of Coûs (Kus Bahar, S.W. Bhotan in Bengal), and states it was eaten by "the kings and lords, and even the common people, though not so much because it costs dear." In the fifteenth and sixteenth centuries its praises were sung by poets of the Far East.

It is believed that opium was introduced by the Arabs into both India and China, as they are known to have traded with the southern parts of the empire as early as the ninth century. In the eighteenth century the Chinese marketed the drug in their junks as a return cargo from India, and it was at that time almost exclusively used as a remedy for dysentery, but the trade grew, and in 1787 the importation reached a thousand chests, for some years most of the trade being in the hands of the Portuguese.

The East India Company in 1780 opened an opium depot with two small vessels at Lark's Bay, Macao. The Chinese authorities began to complain of these two ships in 1793, but the traffic still increased, until they issued an edict forbidding any vessel having opium on board to enter the Canton River. This led to political differences which culminated in the war that was called the "Opium War." It was concluded by the Treaty of Nankin, after which five ports of China were opened to foreign trade, opium being admitted as a legalized import in 1858.

Opium smoking does not appear to have been known in China until the latter part of the seventeenth century, but within a hundred years it spread like the tentacles of an octopus over the entire empire. At this time the authorities became greatly alarmed at the injurious effects among the people following the abuse of opium. Suicides became frequent and the high officials and all classes were becoming rapid slaves to the habit; the sale rose from 2,300 chests in 1788 to 17,500 in 1836. The first edict was issued in 1796

and since that time they have been innumerable, but the traffic increased and is still almost universally carried on. In 1879 in the State of Amoy and its adjacent towns the proportion of opium smokers was estimated at from fifteen to twenty per cent. of the total population.

With regard to the introduction of opium into India, the Mahommedans, once having established its use, began to make it a source of income. The Great Mogul monopolized the opium production and trade, and derived an immense income from its sale. From reliable reports it appears that in India "the largest amount of opium is produced in the central tract of the Ganges, extending from Dinapore in the east to Agra in the west, and from Gorakhpur in the north to Hazaribagh in the south, comprising an area of about six hundred miles long and two hundred miles broad." In the district of Bengal, the Government has the monopoly of the opium industry, and the districts are divided into two agencies, Behar and Benares, which are under the control of officers residing in Patna and Ghazipur. In 1883 the number of acres under poppy cultivation in Behar was 463,829, and the Benares district 412,625; but the export of opium has somewhat diminished since then. Anyone may undertake the industry, but cultivators are obliged to sell the opium exclusively to the Government agencies, at a price which is fixed beforehand by the officials. The Government sells the ready goods to merchants at a much higher price, which difference is paid by the country to which the opium is exported. In India itself, the sale of opium is restricted to licensed shopkeepers, a practice which has proved to be useful, because in some places, when the licensed shops have been closed, a greater number of unlicensed and secret places have sprung up, and have made the contract insufficient.

The opium question is so complex in its nature, and is so largely influenced by the habits and constitution of those nations who are addicted to its use, that it is obvious that only those with skilled medical knowledge, who are on the spot and have lived and had a daily experience of the people, are in a proper position to deal with the question. So much has been written by religious enthusiasts, and other persons totally ignorant of the nature and properties of the

drug, that one almost hesitates to touch upon the subject.

The following facts have been furnished by reliable medical authorities, who are really in a position to judge on the matter.

The cause which led to the use of this narcotic drug by the races of the East, as already stated, may have been primarily due to the prohibition of wine by the Moslems, but more likely on account of its remedial or protective properties being needed by a race subject to malaria and kindred diseases, and to counteract the effect of the hot climate to which they are exposed. It is a remedy at hand, and would seem to be one to which they at once fly. The evil lies more in the smoking than the eating of the drug, the former habit being more prevalent in China, and has the more demoralizing effect. The extent of its use in the East varies according to the geographical and social differences of the people, and it is used in various degrees of moderation and excess.

The drug is employed in various forms, according to the class of people who consume it. In India it is largely used in the crude state, and is sold at about two annas a drachm, in small square pieces. The opium eater will take two or three grains and roll them into the form of a pill between his fingers, and then chew or swallow it, often twenty times in the day. It is also used in a liquid form called Kusamba, made by macerating opium in rose-water ; others boil it with milk, then collect the cream and eat it. The varieties for smoking are known as Chundoo and Mudat, the former being a very impure extract of a fairly stiff consistency, and the latter made from the refuse of Chundoo, of which it largely consists ; but being much cheaper, is chiefly used by the low-class Hindus and Mahomedans. From two to four grains a day may be called a moderate use of the crude drug. The poorer people regularly give it to children up to two years of age, to keep them quiet, also as a preventive against such complaints as enteritis, which is very common in the East ; and so before youth is reached they become inured to its action. Licences to sell the drug are sold to the highest bidder at the opium auctions, the licensee having the privilege of supplying a certain number of small dealers.

The Chinese smoker usually lays himself down on his side, with his head supported by a pillow. On the straw mat beside him between his doubled-up knees and his nose, a small glass oil lamp, covered with a glass shade, is burning. Close to this is a tray, containing a small round box, holding the drug, a straight piece of wire used for manipulating it, a knife to scrape up the fragments, and the pipe used for smoking. The latter is about two feet long, with a nose of about half an inch in diameter, and is not unlike the stem of a flute before it is fitted. About two inches from the bottom of the tube, is a closed cup or bowl of earthenware or stone, having a central perforation. To charge the pipe, a small portion of the drug (weighing a few grains) is picked up with the wire, kneaded and rolled in the closed surface of the cup, then heated in the flame of the lamp till it swells. This is rolled up and again manipulated, then finally placed in the aperture in the surface of the bowl. It is then lighted from the lamp, and the smoke drawn into the lungs through the tube till the first charge is exhausted.

In a report made by the *British Medical Journal* concerning the use of opium in India, from the evidence of medical men long resident in that country, there seems a general consensus of opinion that opium eating, in the majority of cases, exercises no unfavourable influence on the people who indulge in the habit, and that it is a prophylactic against fever, and prevents the natives from malaria and excessive fatigue. There is no comparison between the effects of the opium habit and the habitual use of alcohol. English people cannot judge, from their own standard, the manners and customs of people living under conditions with which they are unacquainted. While we look upon opium as a narcotic, the Hindu uses it as a stimulant to enable him to go through hard work on the smallest quantity possible of food. With reference to the measures suggested by the Committee of the League of Nations for the suppression of the use of opium in India, the Jam Sahib of Nawanagar has recently declared that it would be impossibile to carry them out. It was a habit among working men who needed opium, just as the European wanted tobacco. In Persia, at the present time, according to Wills, nine out of ten of the aged, take from one

to five grains of the drug daily. It is largely used by the native physicians. It does not appear that the moderate use of Persian opium in the country itself is deleterious. Opium smoking is almost unknown, and when it is smoked, it is, as a rule, by a doctor's orders. The opium pill-box—a tiny box of silver—is as common in Persia as the snuffbox was once with us. Most men of forty in the middle and upper classes take from a grain to a grain and a half, divided into two pills, one in the afternoon and one at night. The majority of authorities agree that opium smoking as a habit is much more harmful and attended with much more demoralizing influences than opium eating; but either habit is undoubtedly harmful to Europeans, and when once formed, is extremely difficult to break.

Paracelsus is generally credited with being the originator of the word "laudanum," the name by which tincture of opium is commonly known. Yet there seems little doubt the word was first applied to the gum of the cistus. Clusius, in his *Rariorum Plantarum Historia*, states: "The gum of the cistus is called in Greek and Latin, ladanum, and in shops laudanum." It is therefore very likely that the secret preparation originated by Paracelsus which he called laudanum, was composed of the gum of the cistus as well as opium, and that he adopted the title from the former ingredient.

Sir Henry Holland, in his Recollections,[1] relates that Mehemet Ali, whom he visited, brought the conversation round to poisons. It ended by Mehemet Ali asking him point-blank whether he knew of any poison which, put on the mouthpiece of a pipe or given in coffee, might slowly and silently kill, leaving no note behind. Holland instantly answered that "as a physician he had studied how to save life, not destroy it." This reply, he added, was probably faithfully translated to Mehemet Ali, for he dropped the subject abruptly, and never afterwards reverted to it. Desgenettes, when it was suggested to him by Napoleon that he should poison the plague-stricken soldiers at Jaffa, curtly answered that it was his business to prolong life, not to kill.

When he was driven from Leipzig in defeat and disaster,

[1] *Recollections of Past Life*, Sir Henry Holland.

culminating in his abdication at Fontainebleau, it is said Napoleon attempted to end his life by means of opium. During the retreat from Moscow the Emperor requested his physician to provide him with means to prevent his falling into the hands of the enemy alive, and was supplied with a drug which he carried in a small packet suspended round his neck. Either from the poison losing its properties or having become innocuous, it is said only to have thrown Napoleon, after he took it, into a deep sleep, from which he awoke in spasms.

The Kiowa and other Mexican Indians use the fruit of the *Anhelonium Lewinii*, which they call "mescal buttons," to produce a species of intoxication and stimulation during certain of their religious ceremonies. The effects of this fruit, which, like Indian hemp, varies considerably in different individuals, are very peculiar, and have been described by Lewin, Prentiss and Morgan.

The eating of the fruit first results in a state of strange excitement and great exuberance of spirits, accompanied by volubility in speech. This is shortly followed by a stage of intoxication in which the sight is affected in a very extraordinary manner, consisting of a kaleidoscopic play of colours ever in motion, of every possible shade and tint, and these constantly changing. The pupils of the eyes are widely dilated, cutaneous sensation is blunted and thoughts seem to flash through the brain with extraordinary rapidity. The colour visions are generally only seen with closed eyes, but the colouring of all external objects is exaggerated. Sometimes there is also an indescribable sensation of dual existence.

Some years ago Havelock Ellis published an account of the use and his personal experiences of the properties of mescal buttons. The Mexican Indians treat this cactus with great veneration, gathering it with uncovered heads and amid clouds of incense.

The celebration of the rite is usually held on a Saturday night, when seated in a circle around a large camp fire, for the visions are said to be most intense by flickering firelight. The men pray for "a good intoxication," and then the leader passes the drug around. Throughout the night the men sit quietly round the fire in a state of reverie, absorbed in colour

visions, amid continual singing and beating of drums by assistants. The effects do not pass off till the following noon, when they get up and go about their business with apparently no depression or other after-effects.

After taking three of the buttons in small fragments by pouring boiling water on them twice and drinking the infusion thrice at intervals of an hour, Ellis states that the phenomena of mescal intoxication are merely the saturnalia of the specific senses and chiefly an orgy of vision.

After a transient consciousness of energy, he felt faint and giddy, pale violet shadows floated before him, suggesting, without any definite form, pictures. The air seemed to be filled with a vague perfume, then he saw glorious fields of jewels which sprang into flower-like shapes before his gaze, and then turned into butterfly forms.

"I was further impressed," he says, "not only by the brilliance and delicate beauty of their colours, but even more by their lovely and various textures."

A friend, to whom he gave some of the drug, experienced a pain at the heart and a sensation of imminent death, then with the suddenness of a neuralgic pain the back of his head seemed to open and emit streams of bright colour. "I had the sensation of the skin disappearing from the brow; any movement sent out streams of blue flames of wondrous beauty."

The Mexicans also make a drink from the mescal, which is distilled from the juice of the plant, and during their social entertainments swallow it in copious draughts. Its effects are said to be highly intoxicating, and according to the reports of authorities 90 per cent. of the crimes perpetrated in the ranches and villages are due to this poisonous liquid.

Recent investigation into the pharmacology of the mescal plant prove it to be a poison of a very powerful nature. Large doses produce complete paralysis, and death is caused by respiratory failure.

CHAPTER VI

THE POISON LORE OF TOADS AND SPIDERS

FROM early times the toad has had an unenviable reputation and has been suspected of poisonous properties. Some of the early historians attribute the death of King John of England to a friar who placed a toad in his cup of wine. The story is no doubt fictitious, but there is some ground for the evil reputation that has so long been associated with this unlovely reptile. The venom of some toads is believed to possess poisonous properties in certain countries throughout the world, and some species are said to be particularly virulent. A few years ago Phisalix and Bertrand undertook an investigation to ascertain if there was any truth in the story of the poisonous properties attributed to toads. They succeeded in extracting two powerful principles from the parotid gland and skin of the common toad. One of these was found to act on the heart in a similar manner to digitalis, and the other known as bufotenine exercises a powerful paralysing action on the nerve centres.

The *Ceratophrys ornata*, a toad found in South America, is of a very poisonous nature. It will bite anything that comes in its way and then hang on with the tenacity of a bulldog, poisoning the blood with its glandular secretion. Death may follow its bite, and it has been known to kill a horse by gripping him by the nose, while the animal was cropping grass.

Shakespeare alludes to the evil reputation of the toad in two of his plays and the

> "Toad, that under cold stone,
> Days and nights went thirty-one
> Swelter'd venom sleeping got,"

formed an ingredient in the witches' hell-broth in "Macbeth."

When dropped into the wine cup it was believed to act with deadly effect on those who drank its contents.

In connection with the poison of the toad there is an interesting record on a medical diploma at present in the Library of Ferrara, which was granted to one Generoso Marini in 1642. Marini appears to have made an application for a diploma of medicine and the judges who had the power of granting such degrees, ordered him to produce some efficient proofs of his capability to practise the healing art. Marini agreed to comply with their demand and the result is recorded on his diploma, which was discovered by Cittadella among the archives of Ferrara some years ago ; it reads as follows :—

" Having publicly examined and approved the science and knowledge of medicine of Signor Generoso Marini, and his possession of the wonderful secret called ' Orvietano,' which he exhibited on the stage built in the centre of this our city of Ferrara, in presence of its entire population, so remarkable for their civilisation and learning, and in presence of many foreigners and other classes of people, we hereby certify that, also in our presence, as well as that of the city authorities, he took several living toads, not those of his own providing, but from a great number of toads, which had been caught in fields in the locality by persons who were strangers to him, and which were only handed to him at the moment of making the experiment. An officer of the court then selected from the number of toads collected, five of the largest, which the said Generoso Marini placed on a bench before him, and in presence of all assembled spectators, he, with a large knife, cut all the said toads in half. Then, taking a drinking cup, he took in each hand one half of a dead toad, and squeezed from it all the juices and fluids it contained into the cup, and the same he did with the remainder. After mixing the contents together, he swallowed the whole, and then placing the cup on the bench he advanced to the edge of the stage, where for some minutes he remained stationary. Then he became pale as death and his limbs trembled and his body began to swell in a frightful and terrible manner ; and all the spectators began to believe that he would never recover from the poison he had swallowed, and that his death was certain. Suddenly taking from a jar by his side some of his celebrated ' Orvietano,' he placed a portion of it in his mouth and swallowed it. Instantly the effect of this wonderful medicine was to make

him vomit the poison he had taken, and he stood before the spectators in the full enjoyment of health.

" The populace applauded him highly for the indisputable proof he had given of his talent, and he then invited many of the most learned of those present to accompany him to his house, and he there showed them his dispensary as well as his collection of antidotes, and among them a powder made from little vipers, a powerful remedy for curing every sort of fever, as he had proved by different experiments he had made on people of quality and virtue, all of whom he had cured of the fever from which they were suffering, etc.

" In consequence of the rare talent exhibited by Signor Generoso Marini, and as a proof of our love and respect for his wisdom, we have resolved by the authority placed in our hands publicly to reward him with a diploma so that he may be universally recognised, applauded and respected. In witness thereof we have set our hands and the public seal of the municipality of Ferrara.

" Data in Ferrara con grandissimo applauso il di 26 Luglio, 1642.

" JOANNES CAJETANUS MODONI,
Index sapientum Civitatis Ferrari.

" FRANCISCUS ALTRAMARI,
Cancellarius."

But although the toad under certain conditions was credited with poisonous properties, during the Middle Ages it was esteemed a valuable remedy for the plague and was employed for that purpose in Austria as late as the year 1712.

The country people of Brazil believe the milky secretion of the common toad possesses wonderful curative properties and use it externally as a cure for shingles. In these cases living toads are generally applied to the part affected.

The poisonous drug known as " Senso " in China and Japan is said to be composed of the dried poison from a species of toad. It has been found to contain cholesterol, the bufagin of Abel and Macht ; bufotenine, and a base resembling epinephrine. Bufagin causes a marked rise of blood pressure, and acts as a diuretic. It is toxic in small doses. Bufotenine acts as a local anæsthetic, causes convulsions of the medullary type, and is pharmacologically allied to picrotoxin. The base, resembling epinephrine, is a powerful sympathicomimetic poison.

Certain species of spider possess poisonous properties, notably the *Chiracanthium nutrix* and the *Epeira diadema*. The bite of the female of the former is distinctly venomous, and one milligramme of the juice of the latter variety injected into a cat resulted in death.

Some curious methods of the manner in which some Indian tribes of South America utilize a poisonous grass as a method of defence have been investigated by Bomain. He found that a belt of this plant formed a natural barrier between the Indian tribes who lived on each side of a range of mountains, where it flourished. Animals died as soon as they ate the poisonous grass, and thus a hostile tribe was prevented from encroaching on the territory of another.

On scientific investigation, it was discovered that a few hundred grains of the grass would kill a horse or a mule in an hour or two, the deadly effect being due to the production of prussic acid, which was caused by the decomposition of a glucosive under the influence of a ferment.

A mysterious poison is said to be known among some of the gipsy tribes of Europe which is supposed to consist of the germs of a certain poisonous fungus. When mixed with food it causes death in from two to three weeks after administration. The symptoms produced are said to be similar to those of typhoid fever. A case of poisoning with this substance, which is known to the gipsies by the name of "Dri" or "Drei," was reported in London in 1864.

CHAPTER VII

SOME CLASSICAL POISONS AND THEIR HISTORIES

ARSENIC appears to have had an extraordinary fascination for the poisoner for centuries past and has, perhaps, been more frequently used than any other substance for criminal purposes. Through its history runs a vein of mystery and romance which has continued until the present day.

It was known to the Greeks as early as the fifth century before Christ. Hippocrates, the father of medicine, who flourished 460–377 B.C., used it as an external remedy for ulcers and similar disorders. It was known to the Greeks in that time in the form of sulphuret of arsenic or realgar, also as arsenic sulphide or orpiment, which is found native in Greece and Hungary. Dioscorides knew it in its later form and also mentions its properties when applied externally. There is no allusion at this period to its employment either as a poison or for internal treatment of disease.

The golden colour of orpiment caused many of the early alchemists to consider it the key to the philosophers' stone, and this is said to be grounded on some enigmatical phrase attributed to the Sibylline oracles. The Emperor Caligula (A.D. 12–41), according to Pliny, ordered a large quantity of orpiment to be melted and manipulated so that the gold it was supposed to contain could be extracted from it, but he was no doubt disappointed by the result.

Diocletian (A.D. 260) is said to have collected all the books dealing with the transmutation of metals possessed by the Egyptians whom he had conquered, and destroyed them ; but, when the Arabs overran Egypt, the Jews who fled to Europe, carried with them the knowledge of chemistry they had acquired from the Arabs who kept the lamp of alchemy alive.

In the eighth century there arose a great Arab alchemist called Jábir ibn Háyyan, whose writings were known under the name of Geber. He is said to have been a native of Tarsus and believed to have been the first in Europe to obtain what is now known as white arsenic (arsenious acid) by heating realgar. He gave it the name which it still bears to distinguish it from orpiment or yellow arsenic. From his works we know that he was acquainted with metallic arsenic and apparently knew, that under certain conditions, it deposited a dull silver coat when in contact with bright copper. This discovery was not without its disadvantages to mankind, as from this period probably dates the time it became used for criminal purposes. On the other hand, its medicinal properties, when properly administered, became known and recognized by physicians.

Before white arsenic or arsenious acid was known, most of the poisons recorded by the early writers had something peculiar in regard to their taste, smell or colour, but white arsenic put a new instrument in the hands of the cunning poisoner who sought for something powerful and tasteless for his evil designs, which we shall see later developed into a diabolical art in several parts of Europe.

In India, arsenic has been commonly used for criminal purposes from ancient times down to the present. The reports of the Analyst of the Bombay Government throw considerable light on the methods pursued by native poisoners. In most cases the poison is introduced into sweetmeats and generally distributed by a "strange woman" who has been met in the bazaar or street and who mysteriously disappears. This "strange woman" is found in nearly every analyst's report for the past fifty years and under much the same circumstances. Most of the cases are typical of the people among whom they occur, as instanced in the account of a man who went into a shop one day and entered into friendly conversation with a stranger he met there. By way of thanking him, the stranger presented him with some sweets for distribution among his friends. The result was that five men and a boy were poisoned, and the obliging stranger has never been heard of since.

It is difficult to account for the rationale in such cases, but

still they occur and the professional poisoner in India—for there are many such—is rarely caught or even suspected. In many instances, crimes of this kind are taken little notice of by the community and sometimes the criminal apparently thinks nothing of poisoning a whole family in order to make sure of his victim. The utter absence of motive in many cases would point to the conclusion that they are largely the result of homicidal mania.

In the Middle Ages there was a prevalent idea that all poisonous substances possessed a powerful and mutual elective attraction for each other, and if a portion of the substance was worn suspended round the neck it would intercept and absorb all other noxious matter and even preserve the body from contagion of disease. During the Great Plague of London amulets containing arsenic were worn suspended over the region of the heart and were believed thus to preserve the wearer from infection.

It is characteristic of arsenic, antimony and mercury that their presence may be detected and demonstrated years after they have been taken into the body. Many cases might be cited in corroboration of this, but the following is one of peculiar interest. A wealthy farmer died and was buried in the grave where his father had been interred thirty-five years previously. An examination of certain of the bones of the father revealed particles of a metallic-looking substance which was collected, and on analysis proved to be mercury. It had thus been preserved in the remains for more than a third of a century, the probability being that he had been in the habit of taking it medicinally during the latter part of his life. Another case worthy of record came under the notice of a Bristol analyst, in which he found abundant traces of arsenic in the remains of young children after they had been buried for eight years.

A curious case, proving how the advance of science may influence the rendering of justice, is shown in a striking way by a decision of the Judicial Committee of the revision of trials in France in February, 1904. Twenty-five years previously one Dauval, a chemist, had been found guilty of the murder of his wife by poisoning her with arsenic, and was sentenced to transportation for life. Scientific evidence

having since come to light, tending to show that he was innocent of the crime, he was granted a free pardon eighteen months previous to the meeting of the Judicial Committee. The evidence on which Dauval was found guilty was purely scientific, and later investigation showed the evidence in question to be open to doubt. At the trial in 1879, all the expert witnesses swore that the quantity of arsenic—namely one milligramme—found in the body of Dauval's wife after the post-mortem examination, could not possibly have existed in the system under natural circumstances. It was held to be proved that the presence of such a quantity of the poison was incompatible with life. Since the trial Gautier and Bertrand and other scientific workers have demonstrated that the quantity of arsenic mentioned can, and frequently does, exist in the human body in a normal condition. The presumption thus set up in Dauval's defence was, that the presence of arsenic in his wife's remains was owing to her having been in the habit of taking the drug in medicinal doses.

A strange story is related by the late Sir Richard Quain that came under his notice, and one which would have proved a profound mystery to this day but for his practical knowledge and acumen. He was asked to make a post-mortem examination on the body of a man who was by trade a stone-mason. To continue the story in his own words ; " One day, on coming in to his dinner, he went into the scullery, washed his hands, and going into the kitchen he said to his wife, ' It is all over ; I have taken poison.' ' What have you taken ? ' ' Arsenic,' he replied, and she at once took him off to the Western General Dispensary.

" The senior surgeon was out when they got there, but two young students of his happened to be in, who thought it was a very important case, and they would treat it pretty actively. So they gave him tartar emetic, pumped out the stomach, and pumped oxide of iron into it, and performed a good many other operations. The poor man was extremely ill and died in twenty-four hours. The coroner's beadle went to the chemist and said : ' How did you come to sell this man poison ? ' He replied, ' I sold him no poison ; I thought he was off his head when he came.' ' What did you give him ? ' ' Oh, I gave him some alum and cream of tartar and labelled

it poison.' " " He swallowed this in the belief it was arsenic," says Sir Richard. " When I made the post-mortem examination, to my amazement I found a great deal of *arsenic* in the stomach. This was rather puzzling. I said, if it is in the stomach it ought to go farther down. So I searched the intestines, but there was no trace of arsenic anywhere. The simple explanation of it was this, these two young fellows, horrified to find the man had died without taking arsenic after all, pumped some into the stomach."

Another instance that terminated in a less tragic manner, in which a would-be suicide was frustrated by a watchful chemist, happened some years ago. One morning a tall, decently-dressed man, of seafaring aspect, entered a chemist's shop in the neighbourhood of the docks of a northern seaport, and in a solemn and confidential manner asked for a shilling's worth of *strong* laudanum.

" For what purpose do you require it ? " asked the chemist.

" Well, you see, sir," the man explained, " I've just come off a voyage from 'Frisco, and I find my sweetheart has gone off with Jim, you see, sir, and now it's all up with me. Give me a strong dose please, and if you don't think a shilling's worth will be enough——"

" But, my good man——" interrupted the chemist.

" I'll shoot myself if not, sir, I will," replied the man, thrusting his hand into his pocket.

" All right, then," said the chemist ; and seeing that argument was useless, he proceeded to mix an innocent but nauseous draught of aloes.

" Now put in a shilling's worth of arsenic."

" Very well," replied the chemist, adding some harmless magnesia.

" And you might as well throw in a shilling's worth of prussic acid," said the broken-hearted lover.

The chemist carefully measured a little essence of almonds into the glass and handed it to the would-be suicide. He paid, swallowed it at one draught, and solemnly walked out of the shop. Crossing the street, which was quiet at the time, he deliberately laid himself flat on his back on the footpath and closed his eyes. A group of children gathered round, and stood gazing with their eyes and mouths open in wonderment,

and an occasional passer-by stopped a moment, cast a glance at the unwonted sight and then passed on. After lying thus quite motionless for about five minutes, he suddenly raised his head, took a look round, then with one bound jumped to his feet and made off as hard as he could run.

A parallel case occurred quite recently at Dartmouth, when a naval stoker after a quarrel with his fiancée, entered a chemist's shop and asked for an ounce of strychnine. The chemist, noting his excited manner and becoming suspicious, to pacify him gave him an ounce of borax which he took away, and obtaining a glass, mixed it with water and went out on the cliffs and drank it. Finding it only made him feel very unwell he resolved to throw himself over the cliffs into the sea, but the police arrived just in time to prevent him and found the glass with the remains of borax in it at his side. In this case it ended in a charge of attempted suicide.

Arsenic has been the favourite medium of female poisoners from early times, and in two celebrated poison cases of recent years, in which women were accused of murder by the administration of arsenic, it has been pleaded that the poison had been used by them for cosmetic purposes. The effect of arsenic on the skin is well known, and also that it is frequently used by women both internally and externally to improve the complexion. That this practice may lead to the taking of arsenic as a confirmed habit there is also evidence to prove, and there are many cases recorded where the habit of taking arsenic in solution has been contracted by women.

Formerly, many cases of chronic arsenical poisoning have resulted from arsenic which at one time was used in making cheap green wall-papers and green sweets (both coloured by Scheele's green or hydrogen copper arsenite), the arsenic in the wall-papers being given off in gaseous form during warm damp weather. It is also found in some artificial flowers, in carpets, furs, dress fabrics dyed with aniline dyes, and in black stockings. Murrell examined a number of coloured tobacco and cigarette covers and found arsenic in one-third of them. Used as an insecticide for spraying fruit, it remains on the skins and is sometimes eaten. In these minute doses it seldom does any harm, but may produce chronic poisoning, with loss of hair, neuritis and other harmful results.

Arsenic is poisonous to all animals with a central nervous system (brain or spinal cord) and to most of the higher plants. Mice show the greatest resistance and next come hedgehogs, rabbits, dogs and cats.

In 1903 an analysis of sweets in the Isle of Wight revealed the presence of 1/15th of a grain of arsenic per pound. When arsenic is taken for some time it finds its way into the hair within about two weeks and remains there for years.

The alleged practice of eating arsenic or taking it as a habit has long been a matter of discussion, and as far back as the early part of the last century toxicologists were sceptical as to the statement that the inhabitants of Styria, and other parts of Hungary where arsenic is found, had contracted the regular habit of taking the drug until they had almost become immune to its effects.

In 1865, Maclagan of Edinburgh visited Styria for the purpose of investigating these statements, and he affirms in an account of his visit given in the *Edinburgh Medical Journal*, 1865, that while he was staying at the village of Legist in Middle Styria, two men were brought to him, and in his presence one took about 4½ and the other 6 grains of white arsenic. He brought back samples of what they had swallowed, and on testing it found it to be undoubtedly white arsenic. It was taken by one man on a piece of bread, and by the other was washed down with a draught of water. How extensively the habit existed in the district Maclagan was not able to ascertain, but he mentions that the peasants called it Hydrach or Huttereich. One of the men took a dose about twice a week, the other generally once a week, and he learned they had commenced the habit with doses of less than a grain. The effect was said to be tonic and stimulant and was believed to aid the respiration when climbing. Once having acquired the habit, like that of other poisons, an occasional dose is much missed if omitted.

Arsenic has been a subject of interest to some of our most eminent chemists, one of whom at least, has fallen a victim to it. The first to make an accurate investigation of its chemical nature was Georg Brandt, a Swede, in 1773. The famous Swedish chemist Scheele (1742–1786) also worked on the subject, and discovered arsenic acid in 1775, and impure

arseniuretted hydrogen. Soubeiran, the French chemist, together with Pfaff, succeeded in obtaining pure arseniuretted hydrogen, but so little was known of its deadly nature that in 1815 Gehlen, the professor of chemistry at Munich, died owing to inhaling a minute quantity of the pure gas. Both Berzelius (1779–1848) and Bunsen contributed much to the scientific knowledge of arsenic, and the latter in 1842 discovered an organic radical containing arsenic and methyl, which became known as cacodyl, the salts of which have since been introduced into medicine for certain diseases with satisfactory results.

From the end of the eighteenth century the founders of the modern science of toxicology, Orfila, Raspail, Christison, Taylor and Thomas Stevenson, devoted the best part of their lives to the discovery of new and accurate tests for poisons. Orfila (1787–1853) did his best to make their detection a matter of certainty by insisting that poisons should be looked for in other parts of the body and not only in the alimentary canal. It was in his time that the three principal tests by liquid reagents became known.

Robert Christison (1797–1882) worked under Orfila in Paris, and devoted much attention to methods of testing for arsenic. He was professor of medical jurisprudence in the University of Edinburgh until 1882, and was called as toxicological expert at the trial of Madeleine Smith and in other famous cases.

Reinsch, who developed the test of the deposition of metallic arsenic on a bright copper plate, published his results in 1842, and this was followed by Marsh with his still more important test with nascent hydrogen in 1846. Fresenius and von Babo discovered a method for the systematic search of the organic matter of the viscera in 1844, and in 1850 Stas published his process by which alkaline poisons could be extracted from the viscera.

As the science of toxicology has progressed, so the chances of the criminal poisoner have grown smaller and smaller, till at the present day there is a very slight chance of the arsenical poisoner going undetected.

The story is told of a distinguished medical professor who used to impress on his students that they should never dismiss from their minds the possibility of murder in the case of a

mysterious illness, however little suspicious the circumstances might be. He used to give an illustration from his own experience in a case where he was called in consultation by a local practitioner, who was baffled by the illness of the wife of a clergyman. The professor, after the consultation, asked the husband, "Has the possibility of poisoning occurred to you?" "It has," was his reply, "and I have been so careful to guard against it that I have actually made it a practice to prepare my wife's food myself." "Then I dismiss the thought," replied the doctor, "but as I have already taken a sample of the food in the bedroom, I may as well have it analysed as a matter of form." The clergyman thanked the physician for his scrupulous care, the latter returned to London, and the former shot himself. According to the story, the truth of which is not vouched for, the wife recovered and erected a memorial to her husband in the parish church.

Mercury, one of the most fascinating of all the elements, has traditions that carry it back to an unknown period of antiquity. In the form of sulphide it is recorded in the Papyrus Ebers (1550 B.C.) as being used by the ancient Egyptians, but it is said to have been known at an even earlier date in the form of quicksilver in China and India.

The metal was probably named after the Roman divinity Mercury on account of its volatile nature and its elusive properties when handled. It has the peculiar property of absorbing other metals and forming amalgams. As well as being found native, it was obtained by the ancients by sublimation from cinnabar the oxide. By the alchemists it was represented by the same sign as the planet Mercury. It is alluded to by Theophrastus in the fourth century B.C., but it is to Dioscorides in the first century A.D. it owes the name of hydrargyrum or fluid silver.

For a long time the liquid metal was believed to be poisonous and the native quicksilver was thought to be different from hydrargyrum obtained from the sulphide. Berthelot has shown that the protochloride of mercury was prepared and known as far back as the time of Democritus in the fifth century B.C. In 1386 Chaucer alludes to it as "quick-silver yclept mercurie."

The Arabs, who doubtless derived their knowledge of the

metal from the Greeks, were much attracted by it, and Geber describes perchloride of mercury, also the red oxide from which Priestley afterwards prepared oxygen. Avicenna, the Arab physician, was the first to doubt the poisonous properties of the metal itself, and noted that many persons swallowed it without any ill effects, as it passed through the body unchanged. Fallopius (1523–1562) records that shepherds gave quicksilver in his time to sheep and cattle to expel worms, and Brassavola (1500–1555) says that he had given it to children in doses from two to twenty grains for the expulsion of worms.

About 1497 it was first used in the treatment of syphilis, in the form of inunction, plasters and fumigation. Beringario de Carpi of Bologna, who lived in the early part of the sixteenth century, is said to have made large sums of money from his treatment of syphilis by inunction with mercurial ointment. John Vigo advised fumigation in obstinate cases. The first to record its use internally was Peter Matthiolus, the commentator of Dioscorides (1501–1577). Paracelsus popularized its use, and since the sixteenth century mercury has come to be recognized as a valuable medicine throughout the world.

Robert Boyle, who was born in 1627, and is regarded as the father of chemistry in Great Britain, commenced his experiments in a little laboratory in Oxford in 1653. He afterwards founded the Royal Society, and used to make the oxide by heating mercury in a bottle fitted with a stopper provided with a narrow tube by which air was admitted. The product was known as "Boyle's Hell," on account of the belief that it caused the metal to suffer extreme agonies.

The many ways in which mercury can be transformed and the numerous products which can be made from it, have had a fascination for chemists throughout the ages. Homberg (*c.* 1675), a German chemist, found that by putting a little mercury into a bottle and attaching it to the wheel of a mill that the metal was turned into a blackish powder (protoxide). It is to Sir Theodore Turquet de Mayerne that we owe the popularity of calomel, another product of mercury, for medicinal purposes. Mayerne was the favourite physician of Henry IV of France,

but being compelled to leave Paris, he settled in London and served in the same capacity to James I and Charles I.

Mercury has been credited with certain occult properties, and in the seventeenth and eighteenth centuries it was a common practice in London to carry in the pocket a quill filled with quicksilver and sealed at the end, as a protection against rheumatism. This superstition has survived to the present day, and in some chemists' shops in the City little glass tubes containing mercury, sealed and placed in wash-leather bags, are still sold, and carried in the belief that they will ward off attacks of rheumatism while the phial is on the person.

Antimony has played an important part, both in medicine and chemistry, from a very early period. Known to the ancients as "stibium" or "stimmi," the native sulphide was used by women in Egypt and in the East over three thousand years ago, for darkening the eyebrows and eyelids. Arab women still use it in the form of "kohl," finely ground for making lines between the eyelids, which they regard as an aid to beauty. It was a favourite metal with the alchemists, who hoped to obtain from it a remedy for all ills. They soon discovered how readily it formed alloys with other metals, and found it a simple matter to make salts of the metal. They knew that by simply heating crude antimony in a crucible they would sometimes get a vitreous substance, in consequence of some of the silica of the crucible combining with the antimony. They found that by digesting it in wine, the tartar of the wine formed a tartrate of antimony, and by other processes they got various salts which they discovered had medicinal properties.

The white oxychloride which was called "Algaroth's powder" or the "mercury of life" was one of the most popular emetics in the sixteenth century; it was introduced by Victor Algarotti, a physician of Verona. Another celebrated antimony compound was Kermes Mineral, which is said to have been discovered by Glauber about 1651. The process for making this orange-red powder was kept secret, and wonderful cures are declared to have been effected by it.

In the seventeenth century it was probably one of the most popular remedies in France for ague, dropsy, smallpox,

syphilis and other diseases. Louis XV bought the formula for its preparation for a considerable sum in 1720 from La Ligerie.

In the early part of the seventeenth century, Mynsicht is said to have re-discovered the properties of tartar emetic, which has probably been more frequently used in medicine than any other salt of antimony. It was regarded at one time as a specific for fevers, but used more especially for its emetic properties.

In the sixteenth and seventeenth centuries cups were made of an alloy of antimony and tin, called "antimony cups" (*pocula emetica*). The cup was filled with wine, which was allowed to stand in it for some little time and become slightly impregnated with tartar emetic, so that the liquid when drunk produced vomiting. These cups were frequently found in monasteries, where it is said they were kept in order that the monks who took too much wine could be punished by having to drink some more which had been kept in the *poculum emeticum*.

In the seventeenth century Basil Valentine, a German monk, whose identity is still a matter of dispute, published a work entitled the "Triumphal Chariot of Antimony," in which he describes its virtues as a remedy, and the forms in which it could be prescribed. It was translated into English and published in London in 1678.

Antimony has several times been employed as a poison for criminal purposes, and the cases of Dr. Pritchard and Chapman or Klosowski, who used it, are described in later chapters.

A curious case, which shows how by accidental means a poison may find its way into human remains after death, came to light some months ago in Yorkshire. After the death of a young man, who was certified to have died of gastro-enteritis, his friends found that they could not obtain an order to cremate the body until a partial post-mortem examination had been made. This was done and a small quantity of antimonious oxide was found, which was supposed to have contributed to the cause of death.

A further examination was therefore ordered, and the organs of the body were sent to the Home Office analyst. He

found that these were entirely free from antimony, but he discovered that antimonious oxide was present in the rubber rings of old pickle jars which had been used to send the remains to London for examination. From this source the organs had become contaminated and the certificate that death resulted from natural causes was confirmed.

It is probable that in this case if the analyst had not found antimony present in the rubber bands of the stoppers of the glass jars—which of course should not have been used—it might have been declared that the man had died from the effects of antimonial poisoning, as presumably he had been actually taking antimony in the form of medicine and the result would have been another unsolved poison mystery.

One of the peculiarities of antimony when given in large doses is its property of preserving the tissues of the body after death. In the Klosowski case the body of one of his victims, whom he had poisoned with antimony, was exhumed after five years, and was found to be completely mummified and as well preserved as if it had only been buried a few days.

CHAPTER VIII

ROYAL AND HISTORIC POISONERS

POISON appears to have been employed as a political agent from an early period of history, and many stories, probably more legendary than correct, have been handed down of royal personages who used this secret and deadly method of ridding themselves of troublesome individuals and removing enemies from their path. In the same way, they themselves sometimes became the victims of jealous rivals by similar nefarious means. The greatest craft and cunning were exerted in order to introduce poison into the human body, and there are many stories concerning the curious and subtle methods said to have been employed.

There are but few authenticated records of the use of poison in England for the purpose of taking life until the sixteenth century, although according to tradition King John is said to have compassed the death of the unfortunate Maud FitzWalter by means of a poisoned egg.

The story is a romantic one, and is related by Hepworth Dixon in *Her Majesty's Tower.* In the reign of King John the White Tower received one of the first and fairest of a long line of female victims, in the person of Maud FitzWalter, who was known to the singers of her time as Maud the Fair. The father of this beautiful girl was Robert, Lord FitzWalter, of Castle Baynard on the Thames, one of John's most powerful and greatest barons. The King, it is said, during a fit of violence or temper with the Queen, fell madly in love with the fair Maud. As neither the lady herself nor her father would listen to his disgraceful suit, the King is said to have seized her by force at Dunmow and brought her to the Tower. FitzWalter raised an outcry, on which the King sent troops into Castle Baynard and his other houses, and

when the baron protested against these wrongs his master banished him from the realm. FitzWalter fled to France with his wife and other children, leaving poor Maud in the Tower, where she suffered a daily insult in the King's unlawful suit. She remained obdurate, however, and refused his offers. On her proud and scornful answer to his overtures being heard, John carried her up to the roof and locked her in the round turret, standing on the north-east angle of the keep. Maud's cage was the highest and chilliest den in the Tower, but neither cold, solitude nor hunger could break her resolve, and at last, in a rage of disappointed love, the King sent one of his minions to her room with a poisoned egg, of which the brave girl ate and died.

According to the French Chronicles, "After the death of Gaultier Giffard, Count Buckingham, in the early part of the twelfth century, Agnes his widow became enamoured with Robert Duke of Normandy, and attached herself to him in an illicit manner, shortly after which time his wife Sibylle died of poison."

Probably the earliest recorded case of secret poisoning in England is that of Sir Walter de Scotiney, who was convicted of poisoning the Abbot of Westminster and William, brother of the Earl of Gloucester. According to Leland's account, this happened during the meeting of a parliament which had been convened at Winchester by Henry the Third about 1230. The story is told in the following words :—

"The Abbot of Westminster and William brother of the Earl of Gloucester, a person of great worth and spirit, were both destroyed. The Earl of Gloucester himself languished under the effects of the poison and only escaped death with extreme difficulty, for the hair fell from his head and the nails from his fingers. They are said to have received into their bowels the deadly drug at the table of the Lord Edward, King Henry's eldest son, during breakfast. The Earl escaped destruction merely by the strength of his constitution with the loss of his hair, nails, skin and great injury to his teeth. These atrocious deeds struck the people with Horror. The villainy was imputed to a certain knight, Walter de Scotiney, and at the appeal of the Countess de L'Isle he was seized, judged and drawn."

"In the same year and the latter end of February," the chronicler continues,

"was apprehended at London Walter de Scotiney, the Chief Councillor of the Earl of Gloucester and his seneschall, being suspected of having given the poisonous potion to the Earl, who was himself hardly saved from the gate of death, and to his brother William de Clare who was really killed by it; also was taken William de Bussey whose villanies if related must excite horror and astonishment. He was the seneschal and principal councillor of William de Valence. These men, although they had been under the safe custody of sureties, being now seized and brought before the judges were committed to a viler prison and put in chains."

In the records of Hugh de Bigot, the High Justiciar, it is stated:

"Coming to Winchester they brought Walter de Scotiney steward of the Earl of Gloucester to his trial for poisoning William de Clare the preceding year. Scotiney was convicted, condemned and executed."

Henry VIII at one period of his life was apprehensive of being poisoned, and it was commonly stated that Anne Boleyn attempted to administer poison to him surreptitiously. It is recorded that the King, in an interview with young Prince Henry, burst into tears, saying that "he and his sister, the Princess Mary, might thank God for having escaped from the hand of that accursed and venomous harlot, who had intended to poison them."

The story of the Countess of Somerset, who was tried with others for the murder of Sir Thomas Overbury in the reign of James I, forms an interesting episode in the history of romantic poisoning. Robert Earl of Essex, son of Queen Elizabeth's favourite, and who afterwards became Commander-in-Chief of the Parliamentary forces, married, at the age of fourteen, Frances Howard, a younger daughter of the Earl of Suffolk, the bride being just a year younger than her husband. The match had been arranged and brought about through the influence of relatives, who thought it expedient that the youthful bridegroom should be sent off to travel on the Continent immediately after the marriage had taken

place, and he remained away for three or four years. During this period the countess, who was brought up at Court, developed into a very beautiful woman, but seems to have been equally unprincipled and capricious. On the return of the earl from his travels, she shrank from all advances on his part, and showed the utmost repugnance to her husband on all occasions. Their dispositions were entirely different. He loved retirement, and wished to live a quiet country life, while she, who had been bred at Court, and accustomed to adulation and intrigue, refused to leave town. The King about this time had a number of young men of distinguished appearance and good looks attached to the Court, and of these, one Robert Carr, at length became an exclusive favourite. Between him and the self-willed young countess there sprang up an attachment, which, at least on her side, amounted to infatuation. Her opportunities for meeting her lover were short and rare, and in this emergency she applied to a Mrs. Turner, who introduced her to Dr. Forman, a noted astrologer and magician at that time, and he, by images made of wax and other devices of the black art, undertook to procure the love of Carr for the lady. At the same time he was also to practise against the earl in the opposite direction. These measures, however, were too slow for the wayward countess, and having gone to the utmost lengths with her inamorato, she insisted on a divorce from her husband, and a legal marriage with her lover.

One of Carr's greatest friends was Sir Thomas Overbury, a young courtier and a man of honour and kindly disposition. He was much against this intimacy, and besought his friend to break it off, assuring him it would ruin his prospects and reputation if he married the lady. Carr unwisely made this known to the countess, who at once regarded Overbury as a bitter enemy, and resolved to do what she could to overthrow him. The pair plotted together with evident success, for the unfortunate Sir Thomas was shortly afterwards committed to the Tower by an arbitrary mandate of the King, and was not allowed to see any visitors. Finally, his food was poisoned, and, after several unsuccessful attempts on his life, he at last died from the effects of poison. Cantharides, nitrate of silver, spiders, arsenic, and last of all, corrosive

sublimate, are said to have been administered in turn to this unfortunate individual. Meanwhile, the countess obtained a divorce from her husband on the ground of impotency, and married Carr, who was soon after made Earl of Somerset by King James.

Two years elapsed before the murder of Sir Thomas Overbury was brought to light, when the inferior criminals, Mrs. Turner and others, were convicted and executed; but the Earl of Somerset and his countess, although found guilty with their accomplices, received the royal pardon. The happiness of the earl and countess, however, was not of long duration, as it is stated they afterwards became so alienated from each other, that they resided for years under the same roof with the most careful precautions that they might not by any chance come into each other's presence. Mrs. Turner, implicated in the crime, is said to have been the first to introduce into England the yellow starch that was then applied to ladies' ruffs. Her last request was that she should be hanged in a ruff dyed with her own yellow starch, and her wish is said to have been carried out.

Whether Robert Dudley, Earl of Leicester, Prime Minister and favourite of Queen Elizabeth, was as black as he is painted by some of the historians of his time, it is difficult to judge. His ambition to marry his royal mistress, who, shrewd woman as she was, appears to have had no insight into his unscrupulous character, was apparently the cause of his attempting to move every human obstacle from his path by insidious methods. The death of Amy Robsart, a mystery which has never been completely solved and a description of which is given in a following chapter, is attributed to Leicester's machinations. He was suspected of causing the death of Lord Sheffield, and the Earl of Essex, another rival, is stated to have been also the victim of his hatred.

The death of the latter peer is said, in the language of a contemporary chronicler, as having been due to "an extreme flux cause by an Italian Receit, the maker whereof was a surgeon that was then newly come to my Lord from Italy, a cunning man and sure in operation." The inventor of this recipe was known as Dr. Julio, who was said to be able "to make a man dye in what manner of sickness you will." Essex

died when on his way back to England from Ireland, with the object, it is said, of revenging himself on Leicester for his domestic wrongs. "With the Earl of Essex, one Mrs. Alice Drakott, a godly gentlewoman, is also said to have been poisoned." This lady happened to be accompanying the earl on her way towards her own house, when after partaking of the same cup she was also seized with violent pain and vomiting, which continued until she died, a day or two before the earl succumbed. "When she was dead," says the chronicler, "her body was swollen into a monstruous bigness and deformity; whereof the good earl, hearing the day following, lamented the case greatly, and said in the presence of his servants, 'Ah! poor Alice, the cup was not prepared for thee, albeit it was thy hard fortune to taste thereof.'"

According to all accounts, Leicester's list of victims did not cease here, and, rightly or wrongly, the death of Cardinal Chatillian, who was taken suddenly ill and died in Canterbury, is also attributed to him. The Cardinal had accused the earl of preventing the marriage of the Queen to the King of France, and was journeying back to Dover when he was taken ill and died in a mysterious manner.

Another mysterious death at this time that occasioned considerable sensation was that of Sir Nicholas Throgmorton, a wealthy city magnate of Elizabeth's time, whose name is still perpetuated in the City. Sir Nicholas is said to have been an associate of Leicester's and the one who was ready to do his bidding in thwarting the doings of the Lord Treasurer, Sir William Cecil, who was thought by Leicester to be playing him false. He invited him one night to a supper at his house in London, and, just as the meal was served, hurriedly left for Court, to which he said he had been called suddenly by her Majesty. Sir Nicholas was told to proceed with the meal in his absence, which he did, but soon after was seized with violent vomiting, from which he never recovered. The story continues, that the day before his death he declared to a dear friend "all the circumstances and causes of his complaint, which he affirmed plainly to be poison given him in a sallet at supper, inveighing most earnestly against the earl's cruelty and bloody disposition, and affirming him to be the wickedest, most perilous and perfidious man under heaven."

Whether Leicester was the unscrupulous villain he was made out to be or not, there is no evidence to prove. Many writers aver that he kept his professional poisoners ready to do his will and carry out his designs. There seems little doubt that he had some needy physicians in his pay. His personal doctor, one Bayly, is said to have boasted of the fact that "he knew of poisons which might be so tempered that they should kill the party afterwards at what time it should be appointed." This method, which is alluded to by many writers of the fifteenth century as slow poisoning, was probably due to the effect of administering some poison, such as arsenic or antimony in small doses until the cumulative effect of the substance proved fatal.

An Italian doctor whom Leicester brought home from his travels in Italy, is mentioned in several stories as one of the unscrupulous physicians employed by him who were ready to administer the "Italian Comfortive," as the poison was called, at his bidding. Those whose sudden deaths were attributed to Leicester's instrumentality were commonly said to have succumbed to "Leicester's cold."

There is little doubt, however, that Leicester was suspected of being the instigator of many murders which probably he may have had nothing to do with, as he made many enemies.

His name is also associated with the sudden demise of Lord Sheffield, whose death is said to have been due to "Leicester's cold." A short time afterwards the earl married his widow, but under pretence that the Queen would be offended at the marriage, compelled her to keep it secret. After some time, the more effectually to conceal the connection, he required her to marry Sir Edward Stafford. This she refused to do, till under the gentle discipline of Leicester it is recorded that "her hair fell off and her nails fell out, and she did what was demanded of her to save her life." This story is certified by her own testimony on oath, and recorded by Sir William Dugdale.

The Earl of Sussex, his great rival, is also said to have been one of his victims. On his death-bed he is said to have warned his friends in the following words: "I am passing into another world and must now leave you to your good fortunes and to the Queen's grace and goodness; but beware of the

gipsy's son [Leicester] for he will be too hard for you all. You know the beast as well as I do."

Camden, the historian, who does not discredit many of these stories, asserts that Leicester actually proposed in Council that Mary Queen of Scots should be removed by poison.

There was a curious mystery about the death of Prince Alexander, the son of Peter the Great, the story of which is related by Henry Bruce, an Englishman in Peter's service in 1782. Bruce states that he was at the citadel of St. Peter and St. Paul, where the Tsarevitch was imprisoned on a charge of *lèse-majesté*, the Tsar and Marshal Veide being also present. The latter ordered Bruce to go to the apothecary Beer, who lived close by, and tell him "the potion must be made strong, for the Prince was very bad indeed." The apothecary trembled and turned pale at the message, but refused to explain to Bruce why he was thus agitated. The Marshal, who had sent Bruce, followed him, and told Beer to "hurry, for the Prince had had an apoplectic fit." The apothecary handed him a silver cup, which the Marshal carried to the Prince, "staggering all the time like a drunken man." Half an hour after the Tsar left the citadel, gloomy, like all his retinue. Bruce was ordered to stay and dine at a table set for the Tsarevitch. "Two doctors and two surgeons dined apart. They were called in to the Prince; he was in convulsions, and died at 5 p.m., after atrocious suffering. Bruce informed the Marshal, who told the Tsar. The viscera were removed by Peter the Great's orders before the body was coffined."

In India, when powdered glass is employed for lethal purposes, it is generally given with sherbet or some kind of food. It acts as a powerful irritant to the coats of the stomach or intestines and produces gastro-enteritis.

A celebrated case in which this substance was used occurred in India in 1874, when the Gaekwar or reigning prince of Baroda, was tried for attempting to kill the British political resident, Colonel Phayre, by administering powdered glass to him in sherbet. He was brought to trial before a court composed of three Indian and three English judges, and after a trial lasting thirty-five days the English judges pronounced for a conviction and the three Indian ones for an acquittal. In the end the Gaekwar was deposed and deported to Madras.

CHAPTER IX

POISONS TRIED ON HUMAN BEINGS

FROM an early period science has been gradually built up by experimental methods and even the ancients were cognizant of the fact that the remedial properties of a substance could only be proved by actual experiment. Not only animals but human beings were utilized for this purpose by many famous physicians in the Middle Ages. Criminals who had been condemned to death were generally selected when available.

It is stated by Pierre Fabre, in the *History of the Apostles*, that the Apostle John was present at the execution of two criminals by poison in the public forum at Ephesus.

Vivisection of the live human subject was practised by the Alexandrian school in the time of the Ptolemies. Erasistratos and Herophilos, pupils of Chrysippos of Cnidos, are said to have experimented upon 600 condemned criminals handed over to them by Ptolemy Soter. They opened the abdomens of some of these men to study the movements of the colon and those of the muscle of the diaphragm on the inspiration of air; they also opened the chests of the others to study the cardiac movements. Their conduct, however, met with the reprobation of their contemporaries. Celsus and Galen reproached Herophilos with "cruel and useless sacrifices" and of "inhuman feeling," while Tertullian called him roundly "an executioner who gave lingering death with refined cruelty." The Court physicians of Attalus, King of Pergamus, and Mithridates, King of Pontus, were authorized in virtue of their office to try poisons upon criminals, and were accused by their jealous colleagues of pluming themselves upon their privileges, while less favoured practitioners were compelled to be content to experiment upon cocks and dogs.

An allusion to the use of animals for the purpose of physiological experiment is to be found in a document still preserved in the Venetian secret archives, which bears the date 1432. It states: "Trial has been made on three porcine animals of certain venoms found in the chancery sent very long ago from Vicenza which have been proved not to be good."

This document affords interesting proof that the Italians at that early period were much in advance of other European nations in their knowledge of poisonous substances.

Brassavola of Ferrara studied little known and doubtful remedies by testing their effects on criminals, and Fallopius, his pupil, who eventually made such important physiological discoveries, followed his master's example. It is recorded that Cosimo de Medici, Grand Duke of Tuscany, on one occasion ordered the magistrates of Pisa to hand over two men to Fallopius, "in order that he may put them to death in whatever way he pleases, and then anatomize them." Fallopius, however, seeing the men were condemned to death, seems to have acted with both dignity and humanity. He gave them each eight grains of opium; one died and the other recovered. Cosimo pardoned him, but, if we may believe contemporary records, Fallopius did not: he gave the man eight grains more, and this time he died.

At Bologna, poisons were habitually administered to criminals without their knowledge to obviate the perturbing influence of fear upon natural toxic effects. Arsenic was employed in the same way at Mantua and Florence. Even princes of the Church did not show themselves above taking part in these experiments. The Cardinal-Archbishop of Ravenna, with the permission of Duke Ercole II, tried the effects of corrosive sublimate (!) as an antidote, though this seems rather like cutting off a child's head to cure it of squinting. Pope Clement VII's experiment with a secret oil which was given to certain unfortunate Corsicans as an antidote to the aconite they administered judicially, may be cited as a more humane effort in the cause of science, and was, no doubt, considered to have been partially successful, as one of the victims survived the aconite and received a free pardon.

Dr. Harris, who was physician-in-ordinary to Charles II, gives an account of one Pontæus, apparently a contemporary, who is described as the first mountebank who ever appeared on a stage in England. This performer issued a challenge to the physicians of Oxford to prepare the rankest poison they could contrive, and he undertook that one of his servants should take it and recover. Thus would he demonstrate the marvellous virtues of the orvietan he had for sale. The medical practitioners of Oxford accepted the challenge, and decided on aqua fortis. Pontæus's man drank off on the stage what they brought him, fell down as dead, was carried off, and reappeared the next day no worse for his experience. Dr. Harris explains that previous to the test he had well greased his mouth and gullet with 2 or 3 lb. of fresh butter, and that after getting him behind the scenes a lot more butter was administered, and then warm water, which made him sick. Another member of the charlatan's staff next washed his hands in molten lead before the spectators. His hands were immediately violently inflamed, and his sufferings were obvious to the crowd, if not appreciated by himself. Some of the professor's famous green ointment was then applied to the almost skinless flesh, and the hands were carefully bandaged. Next day the bandages were removed, and the hands were scarcely even inflamed. It transpired afterwards that the molten lead was warm quicksilver placed in a ladle painted red, and when the man dipped his hands in the metal he was concealing in them some vermilion, which he rubbed over the flesh under the quicksilver.

François Ranchin, Professor and Chancellor of the Faculty of Montpellier in the eighteenth century, wrote that experiments upon human beings were worthy of approval and had been held in high honour by the ancients.

English surgeons in the eighteenth century were also willing to avail themselves when the opportunity offered to experiment on a condemned criminal.

In 1731 a man named Charles Ray was reprieved on condition that William Cheselden, the famous anatomist and surgeon, should perforate the drum of his ear in order to ascertain if it would cause deafness. The unfortunate subject,

however, was taken ill with fever before the experiment could be performed, and the operation was abandoned.

Again, in 1763 another condemned man was offered a reprieve on condition that he consented to have one of his legs amputated to test the power of a new styptic. Fortunately, perhaps, for him, he died before the experiment could be performed. Four years later one John Benham is reported to have been reprieved for a similar purpose, but when Pierce, the inventor of the styptic, waited upon the Secretary of State to make arrangements, he was informed that His Majesty the King was of the opinion that it was quite improper to try such an experiment.

In more recent times seven condemned criminals in France were inoculated with the plague, but only one contracted the disease, and a certain German professor inoculated a man with carbuncle, which brought upon him the denunciations of his professional brethren.

On the ethics of such experiments much diversity of opinion exists, but only when the subjects voluntarily submit themselves, as was recently done in connection with the researches on yellow fever, can this course be in any way justified.

CHAPTER X

THE SLOW AND TIME POISONS OF MEDIÆVAL TIMES

THE belief that certain slow and secret poisons could be so prepared that their administration could be controlled with such a degree of precision as to cause death at any given period, according to the will of the poisoner, has existed from ancient times. This idea was encouraged and fostered by the practitioners of alchemy and astrology, and others who professed to exercise magical powers. They also claimed a knowledge of certain lethal bodies which could be administered to the victims that would leave no trace behind them.

"Truly," says a writer of the seventeenth century, "this poisoning art called 'veneficium' of all others is most abominable, as whereby [crime] may be committed where no suspicion may be gathered nor any resistance be made; the strong cannot avoid the weak; the wise cannot prevent the foolish, the godly cannot be preserved from the hands of the wicked; children may thereby kill their parents, the servant the master, the wife her husband so privily, so uncurably that of all other it hath been thought the most odious kind of murther."

The origin of the time or slow poison tradition may be found in the cunning which is usually associated with the poisoner. In order to avoid suspicion, the poison was probably first administered to the victim in minute quantities, then gradually increased, from time to time, until it was finally decided to give the lethal dose, and so the culminating time was determined by the poisoner.

Theophrastus refers to a poison prepared from aconite which, he states, would produce its effects after two, three or

six months, or even years, after it had been administered. Plutarch records that one of the Philips of Macedon caused such a poison to be given to Aratus King of Sicyon, which is said to have produced a gradual wasting of the whole body, accompanied by bleeding from the nose.

In Italy, during the Middle Ages, the highest dignitaries of the Church did not scruple to employ this evil method of gaining their ends, and statesmen used it as an instrument of diplomacy. Princes and nobles became adepts in devising the most cunning methods of administering a lethal dose to those whom they wished removed from their paths. This subtle method for the destruction of human life seems to have specially appealed to the Latin races of all classes. When they desired to dispose of a dangerous enemy or an inconvenient rival, they saw no distinction between using poison and the dagger. Many notable personages are said to have fallen victims to the poisoner's craft, including Pope Victor II, Christopher I, King of Denmark, and Henry VII of Germany.

With respect to the latter monarch, it is stated that on his return from Italy, where he had made many enemies both in Church and State, he stopped at the small town of Buonconventis to celebrate the festival of Easter. After receiving the sacrament he fell suddenly ill and died in terrible agony. The sacred elements of the Eucharist are said indeed to have been often utilized as a medium for this evil purpose. A case occurred within recent years when the same method was employed, proving that even to-day, in some remote parts of Italy, the old craft of the poisoner still survives. A few years ago, an aged priest named Donato Marulli, while celebrating mass in his church in the village of Villamagua in Abruzzi, fell writhing in agony on the altar steps. Consternation ensued among the congregation present, who crowded round the sacristan demanding explanations. Hearing suspicions of poisoning mentioned, he seized the chalice and drained the contents to demonstrate that the priest's seizure was not due to the consecrated cup, but in a few moments he collapsed in the same manner. Suspicion afterwards fell on a young priest, who was subsequently arrested. It was found

that he had mixed corrosive sublimate with the wine just before the celebration, the motive being to get promoted as parish priest in the old man's stead.

The extent to which the belief in the extraordinary power of poisons grew is instanced in the story of an association of women that flourished at Cassalis in Italy in the year 1536. The members are said to have poisoned whole families by

"smearing the posts and doors of their houses with a noxious ointment and powder of which they prepared about forty crocks for the purpose. The like villainy was practised at Genoa and execution was done upon the offenders. Their art consisted in poisoning cattle as well as men, for it is written by divers authors that if wolves' dung be hidden in the mangers, racks, or else in the hedges about the pastures where cattle go (through the antipathy of the nature of the wolfe and other cattle) all the beasts that favour the same do not only forbear to eat but run about as though they were mad."

It need hardly be said that this story is simply a phase of the witchcraft superstition so commonly believed at this period.

On carefully investigating the cases recorded of so-called secret and slow poisonings mentioned by writers of the Middle Ages, the substance employed in the majority of such cases was probably arsenic in some form. La Spara's mysterious elixir, that was the cause of so many deaths in Rome in the seventeenth century, was a preparation of arsenic, and so also was the famous Aqua Toffana, which is said to have put an end to no less than six hundred persons. It is very improbable that any substances of a toxic nature were used in mediæval or earlier times that are unknown to science to-day, and most of the stories of slow and secret poisoning can be explained by the manner in which the poison was given. A common phrase used by historians of this period in closing the account of some personages of note was, "he died not without suspicion of venom."

According to the Burghley papers, there was great dread of secret poisoning in Queen Elizabeth's time.

On June 27, 1572, one Richard Bexley, writing to Burghley, advises him not to take any physic of Dr. Gyfford, recently

from Rome, lest he might be "Italianated" (a phrase actually coined to express secret poisoning). As early as 1561 it became necessary to surround the Queen with precautions against poisons. Not an untasted dish was allowed to be brought to her table, not a glove or a handkerchief might approach her person which had not been scrutinized, and she was dosed weekly with antidotes.

Another story which shows the extraordinary credulity respecting the power of poisons that existed in the sixteenth century is related in a rare tract published in 1652, that purports to be an account of an attempt on the life of Queen Elizabeth. It states, in "Anno Dom. 1596 one Edward Squire sometime a scrivener at Greenwich, afterwards a deputy purveyor for the Queen's stable, in Sir Francis Drake's last voyage was taken prisoner and carried into Spaine, and being set at liberty, one Walpole a Jesuite grew acquainted with him and got him into the Inquisition whence he returned a resolved Papist, he persuaded Squire to undertake to poyson the pommell of the Queen's [Elizabeth's] saddle, and, to make him constant, made Squire receive the Sacrament upon it; he then gave him the poyson chusing that he should take it in a double bladder and should prick the bladder full of hoales in the upper part, when he should use it (carrying it within a thick glove for the safety of his hand) should after turne it downward pressing the bladder upon the pommell of the Queen's saddle. This Squire confest. Squire is now in Spaine, and for his safer dispatch it was devised that two Spanish prisoners taken at Cales should be exchanged for Squire and one Rawles, that it might not be thought that Squire came over but as a redeemed captive.

"The Munday sennight after Squire returned into England, he understanding the horses were preparing for the Queen's riding abroad laid his hand and crushed the poyson upon the pommell of the Queene's saddle saying, 'God save the Queene,' the Queene road abroad and as it should seem laid her hand upon the place or els received no hurt (through God's goodness) by touching it. Walpole counting the thing as done, imparted it to some principall fugitives there, but being disappointed of his hope, supposing Squire to have been false, to be revenged on him sent one hither (who should pretend

to have stolne from thence) with letters wherein the plot of Squire was contained; this letter was pretended to be stolne out of one of their studies.

"Squire being apprehended confessed all without any rigor, but after denied that he put it into execution, although he acknowledged he consented to it in the plot, at length he confessed the putting it in execution also."

The death of Niccolo Macchiavelli, whose abbreviated Christian name according to Macaulay was the origin of the term "Old Nick" commonly applied to the universal enemy of mankind, is said to have been due to a magic potion. Henry Morley, however, gives another version, and states that, "having failed in health after his last reverses, Macchiavelli increased his ailment by an overdose of castor oil, a medicine then in particular repute, and died two days afterwards on June 22, 1527."

This statement is evidently an error, as castor oil (the oil expressed from the seeds of the *Ricinis communis*) was not in use as a medicinal agent until more than 200 years after Macchiavelli's death. The drug that Macchiavelli may have taken is the oil of castor, a product of the animal of that name which was often used in the fifteenth and sixteenth centuries. An interesting light is thrown on the composition of the so-called magic potion in a letter written by him to his friend Guicciardini on August 17, 1525, nearly two years before his death. He states:

"I send you twenty-five pills made for you already four days since; you will find the receipt for them at the end of my letter. I tell you they have resuscitated me. Begin by taking one after supper; if it has any effect you will cease; if not, you will take two or three, but not beyond five. As for myself, two have always sufficed, and that only once a week, except when my head is heavy or my stomach loaded. . . . But let us return to the receipt for the pills:—

Aloes	drachm	1½
Carman. deos? (Cardamom sem.)	,,	1
Saffron	,,	½
Myrrh	,,	½
Betony	,,	½
Pipinella	,,	½
Armenian bole	,,	½ ,,

Such was the medicine of which Macchiavelli ordinarily made use, and which Paul Jove entitles an enchanted potion, saying that Macchiavelli, after having taken it, died mocking God, and pretending that he was, so to speak, become immortal.

These pills are a strong purgative taken in the dose prescribed, and it is possible Macchiavelli, while in a weakened condition, may have overdosed himself with them, and so hastened his end.

Elisabetta Sirani, one of the famous women painters of the Bolognese school in the seventeenth century, is supposed to have been poisoned by her maid, and an interesting account of her illness and death is recorded in a manuscript in the Archives of Bologna. It states, that, "In Lent 1665, she was seized with pains in her stomach. She grew thin and lost her colour so that every one wondered at it, for before she was healthy and robust. In the summer, about St. Bartholomew's Day, a redness with a little swelling appeared under her chin and jaw. These were cured with an ointment in a few days. On August 12 or 13 she was again seized with pain which was worse after eating. Her sister was in bed stricken with fever and the family physician Doctor Gallerati was attending her. Elisabetta complained to him. He said, 'it was no time to take medicine for the Sun was in Leo and that the pain was due to a little catarrh.' He advised her to take a little acid syrup early in the morning. Her aunt made the syrup and she took it two or three times, four teaspoonsful for a dose and seemed relieved.

"But the pains returned. Nevertheless, she went with her mother on August 24 to the Feast of the Porchetta, and when asked how she was, said she 'was all right when she didn't think about it.' On August 27 about two in the afternoon the pain returned with violence. She became ghastly and was bathed in cold perspiration. Her aunt with difficulty put her to bed. She could not lie flat, but was easier in a half sitting posture.

"She felt sick, but the emetics and clysters given had little effect. All through the night her relations applied hot cloths to her cold body. The pain continued and the extremities turned black.

"A little while before her death the pain seemed to lessen and go lower; she began to move in bed, then fainted and died about eleven o'clock after being ill about thirty-three hours. After death her body swelled. The nose thickened, the features changed. She looked like a woman of sixty albeit she was but twenty-six years of age. She was given by her relatives: 1, Teriaca; [1] 2, Spetie di Elescoff in broth; 3, Bezoar and oil of the Grand Duke against poison."

At her father's urgent request a post-mortem examination was made the day following Elisabetta's death! This, it is recorded, was carried out by Master Ludovico, Surgeon of the Ospedale della Morte, in the presence of six other physicians. Perforations were found in the stomach, which five out of the seven doctors, attributed to the action of a "corrosive poison." A Doctor Fabri introduced his finger into one of these perforations and found the circumference was surrounded by hardened tissue, and Dr. Gallerati, the family physician who had attended her, was of the opinion there was evidence of a "corrosive poison."

Suspicion fell upon a maidservant called Lucia Tolomelli, on the assertion of another domestic, that she had seen her place a "brown powder" in some food. So Lucia was arrested on September 1, 1665, and charged with the murder of Elisabetta Sirani. After a protracted trial, the evidence was deemed insufficient and she was released, it being concluded that death had been due to natural causes.

There seems little doubt that this conclusion was correct, and this gifted lady probably died from peritonitis.

In this case, as in many others where the physician was unable to diagnose the disease and was puzzled to account for a patient's death, it was generally deemed to be the result of a slow poison, which deduction formed a ready solution of the difficulty.

[1] A purgative electuary composed of scammony, cream of tartar and salt of tartar.

CHAPTER XI

THE ITALIAN SCHOOL OF POISONERS

THE study of the criminal methods of using poisons developed into a cult in Italy during the Middle Ages, and the Italian school of poisoners became known throughout Europe. There is authentic record that its members were ready on receipt of certain fees to carry out murder by poison to order.

A document drawn up by Charles King of Navarre throws some light on the systematic manner in which the poisoning of obnoxious persons was carried out. It is in the form of a commission to one Wondreton to poison Charles VI, the Duke of Valois, brother of the King, and his uncles, the Dukes of Berri, Burgundy and Bourbon. It reads:

"Go thou to Paris; thou canst do great service if thou wilt. Do what I tell thee; I will reward thee well. There is a thing which is called sublimed arsenic; if a man eat a bit the size of a pea, he will never survive; Thou wilt find it in Pampeluna, Bordeaux, Bayonne, and in all the good towns thou wilt pass at the apothecaries' shops. Take it, and powder it; and when thou shalt be in the house of the King, of the Count de Valois his brother, and the Dukes of Berri, Burgundy and Bourbon, draw near and betake thyself to the kitchen, to the larder, to the cellar, or any other place where thy point can best be gained, and put the powder in the soups, meats, or wines; provided that thou canst do it secretly. Otherwise do it not."

It is satisfactory to learn that the miscreant who was entrusted with this diabolical commission was detected in time, and executed in 1384.

From the fifteenth to the seventeenth century there were schools of poisoners both in Venice and Rome. The Venetian

poisoners who first came into notoriety began their operations early in the sixteenth century. At that period the mania for poisoning had risen to such a degree that the governments of the States were formally recognizing secret assassination by poison, and considering the removal of emperors, princes and powerful nobles by this method. This is not a myth, as record of the notorious Council of Ten, which met to consider such plans, and an account of their proceedings still exists. It gives the number of those who voted for and who voted against the proposed removal of certain persons, the reasons for their assassination and the sums paid for their execution. Thus these conspirators quietly and secretly arranged to take the lives of many prominent individuals who displeased them. When the deed was executed it was registered on the margin of their official record by the significant word "Factum."

On December 15, 1543, John of Ragusa, a Franciscan brother, offered the Council a selection of poisons, and declared himself ready to remove any person whom they deemed objectionable out of the way. He openly stated his terms, which for the first successful case were to be a pension of 1,500 ducats a year, to be increased on the execution of future services. The Presidents, Guolando Duoda and Pietro Guiarini, placed this matter before the Council on January 4, 1544, and on a division it was resolved to accept this patriotic offer, and to experiment first on the Emperor Maximilian. John, who had evidently reduced poisoning to a fine art, submitted afterwards a regular graduated tariff to the Council, which reads as follows: —

For the great Sultan, 500 ducats.

For the King of Spain, 150 ducats, including the expenses of the journey, etc.

For the Duke of Milan, 60 ducats.

For the Marquis of Mantua, 50 ducats.

For the Pope, 100 ducats.

He further adds at the foot of the document, "The farther the journey, the more eminent the man, the more it is necessary to reward the toil and hardships undertaken, and the heavier must be the payment."

What may be called the Roman school of poisoners became prominent in the early sixteenth century, and their operations

continued until the early part of the eighteenth century. During this period the magnitude and daring of their crimes struck terror into the hearts of the chief nobles and rulers of the country. The books on what were called "secrets," published in Italy about this time, which contain formulæ of various descriptions, contain many allusions to poisons. Stories are told of poisons supposed to be unknown, whose secrets died with their originators.

The mania for poisoning appears to have seized on all classes from the highest to the lowest, and no one who made an enemy was safe. Baptiste Porta, who wrote a book on the subject in 1589, made a careful study of the subject, and describes methods which were no doubt used in his time. He mentions various means for drugging wine, a favourite medium for administering poison. For this purpose belladonna root, nux vomica, aconite and hellebore were employed, all of which are very deadly in their effects. He gives a formula for compounding what he calls a very strong poison named "Venenum Lupinum," which was composed of aconite, taxus baccata, caustic lime, arsenic, bitter almonds and powdered glass. These substances were to be mixed with honey into a stiff paste and made into pills the size of hazel nut. His method of poisoning a sleeping person was to make a mixture of hemlock juice, bruised stramonium, belladonna and opium, which was to be placed in a leaden box with a perfectly fitting lid, and allowed to ferment for several days. When this was done it was to be uncovered and placed under the nose of the intended victim while asleep. So long as the individual only smelt and did not swallow the compound, it could not have done him much harm.

During the early part of the seventeenth century the southern parts of Italy, including Sicily, also appear to have been infested by unscrupulous practitioners in the use of poison, and Naples became a centre for this nefarious trade. The most notorious of these criminals whose name has been left on record is the woman named Toffana, who, there is little doubt, was responsible indirectly for the deaths of hundreds of people. About 1650, when she was little more than a girl, she began her evil career in Palermo, but in 1659, during the pontificate of Alexander VII, she removed to Naples

and made it the centre of her operations. Whether she herself devised the poison which is associated with her name, or whether she obtained the knowledge from a confederate, is not known, but her method was to prepare the solution and bottle it in special phials bearing the representation of some saint, generally Saint Nicholas of Bari, who was connected with a medicinal spring, the water of which had a reputation for healing. Sometimes she used other names for her poisonous solution, such as "Aquetta di Napoli," "Manna of St. Nicholas

A BOTTLE WITH REPRESENTATION OF ST. NICHOLAS OF BARI SAID TO HAVE BEEN USED FOR AQUA TOFFANA.

di Bari," or gave her own name to it, "Aqua Toffana." These bottles of poison were freely sold, especially to women, reputedly as a cosmetic for application to the skin to improve the complexion, for which purpose, owing to its active constituent being arsenic, it probably proved effective. Anyone in the secret could buy the poison for its supposed external application, and Toffana took care only to deal with individuals after due safeguards had been built up. She changed her

abode so frequently, and adopted so many disguises, that even when suspicion actually fell upon her after many mysterious deaths, detection was rendered very difficult. She cunningly worked on the minds of her clients who were susceptible to religious or superstitious influences, and those who were unaware of the origin of her deadly solution were told it was a certain miraculous fluid supposed to ooze from the tomb of St. Nicholas, a saint of healing.

Her preparations were doubtless bought by many in good faith in the belief that the liquid had miraculous properties, but those who knew the secret, especially women, often used it for criminal purposes, and it is estimated that over six hundred persons were poisoned by her preparations in Naples and Rome. Two Popes and other Church dignitaries are said to have fallen victims to the poison, and it was not until after a long career, and when Toffana had reached the age of seventy, that she was found to be the originator of these wholesale crimes. In a letter addressed to Hoffman [1] by Garcelli, physician to the Emperor Charles VI of Austria, he informed him that being Governor of Naples at the time, he knew that the Aquetta di Napoli was the dread of every noble family in the city, and that the subject was investigated legally. He thus had the opportunity of examining all the documents, and found the poison to consist of a solution of arsenic, which was of such strength that from four to six drops in water or wine was said to kill an adult, and that it was colourless, transparent and tasteless.

When the manufacture and sale of the poison was at last traced to Toffana, she took refuge in a convent, where, under the privileges of the place, she bade defiance for some time to the officers of justice, and continued to vend her solution from the very bosom of the Church until the scandal became at length too great to be tolerated. She was then dragged from her refuge and thrown into prison. A great outcry was raised by the clergy at this violation of their privileges, and the people, unwilling to be defrauded of their right to use the poison, joined in the clamour of the priests. It was only by circulating a report that she had poisoned the wells in the

[1] *Medicinia Rationalis Systematica*, i. 198.

city, that the current of public sentiment could be turned against her. Being put to the rack she confessed her crimes, and named those who had afforded her protection. They were immediately arrested in various churches and monasteries. It was stated that the day before her last flight from justice, she had sent two boxes of her "manna" to Rome. They were found in the custom-house in that city. The archbishop still murmured at her being torn from a privileged asylum and accordingly the authorities contrived to have her strangled and thrown into the court-yard of the convent from which she had been taken in 1709. Her practices, however, did not cease at her death, and, according to Keysler, who travelled in Southern Italy in the early part of the eighteenth century, the *aquetta* continued to be prepared in great quantities for some time afterwards.

There was naturally much mystery at the time as to the composition of Aqua Toffana and the most extraordinary properties were attributed to it. Its alleged effects are described by Behrens, a contemporary writer, who states that on taking it

"a certain indescribable change is felt in the whole body, which leads the person to complain to his physician. The physician examines and reflects, but finds no symptoms either external or internal, no vomiting, no inflammation, no fever. In short, he can only advise patience, strict regimen, and laxatives. The malady, however, creeps on, and the physician is again sent for. Still he cannot detect any symptoms of note. Meanwhile the poison takes firmer hold of the system; languor, wearisomeness, and loathing of food continue; the nobler organs gradually become torpid, and the lungs in particular at length begin to suffer. In a word, the malady, from the first is incurable; the unhappy victim pines away insensibly even in the hands of the physician, and thus he is brought to a miserable end through months or years, according to his enemy's desire."

Father Labat, in his *Travels in Italy*, observes that the association of the name of St. Nicholas of Bari with Aqua Toffana was a great advantage to her, as there was such a preparation in reality, a sacred water, and Toffana's solution, under the name "Manna of St. Nicholas di Bari," was able to pass the Custom-house with little scrutiny.

Toffana had many imitators, who continued to practise for some time after her death. A similar scheme was attempted with a poisonous preparation which was sold for cosmetic purposes, called "Aquetta di Perugia." It is said to have been prepared by killing a hog, disjointing it, and strewing the pieces with white arsenic, which was well rubbed in, and finally collecting the juice which dropped from the meat itself.

This preparation was supposed to be a much stronger and powerful poison than arsenic, and was more rapid in its action.

Some idea of the extent to which criminal poisoning was carried in Italy may be gathered from an account of a secret society of women that was formed in Rome in 1659. Many of the members were young married women belonging to some of the best and wealthiest families of that city. They apparently met together with the chief object of plotting to destroy the lives of their husbands or members of families connected with them. They gathered at regular intervals at the house of a woman called Hieronyma Spara, who was reputed to be a sorceress. She provided the members of the Society with the poison necessary for their purposes, and planned and instructed them how to use it.

Operations had been carried on for some time before the existence of the Society was discovered, "and," says a contemporary writer, "the hardened old hag passed the ordeal of the rack without confession, but another woman divulged the secrets of the sisterhood, and La Spara, together with twelve other women implicated, were hanged." Many others were publicly whipped through the streets of the city.

A curious story is told of D'Annunzio, the Italian poet, who became prominent in 1921 in the seizure of Fiume, which he held as dictator for some time. It is stated that when serving in the Italian Air Force, which he did with distinction during the war, it was his custom to carry a small bottle of a very powerful poison in his pocket which he used to allude to invariably as "My Pharmic Liberator." This poison he is said to have had concocted for him in Venice, and it was made from a mediæval recipe only known to the Venetian poisoners. It is said that when he was performing his memorable raid over Vienna the

engines of his aeroplane stopped and restarted thrice over, and feeling certain that a descent over enemy territory was inevitable, he got his phial ready in order that the Austrians should not capture him alive. At that very moment he is said to have seen an apparition of his mother, who had died two years beforehand, who bade him cast away all fears and he would get through. He is said also to have kept his phial of poison close at his hand during the bombardment of Fiume, and his friends had to keep perpetual watch upon him during those critical hours.

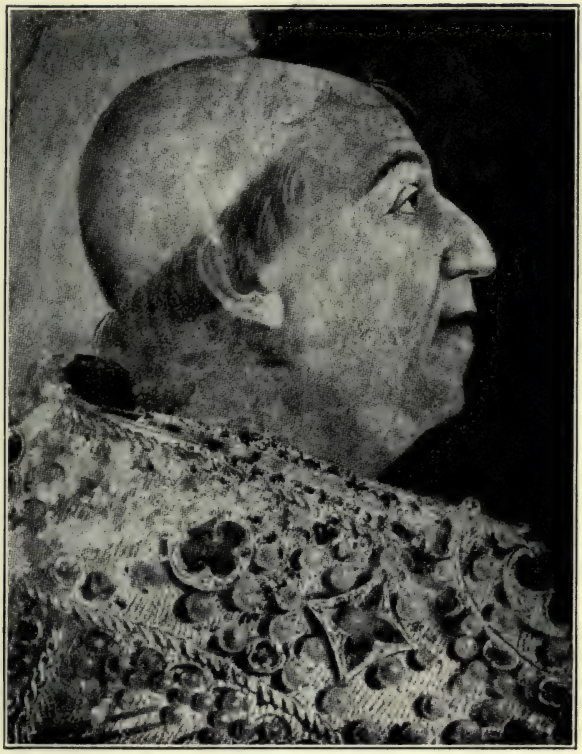
CHAPTER XII

THE MYSTERY OF THE BORGIAS

CONSIDERABLE mystery has ever enveloped the history of the Borgia family, whose name historians have linked with some of the most morbid stories of crime and secret poisoning during the Middle Ages. A great deal that has been written concerning their crimes is doubtless pure fiction, and it is only within recent years that owing to the discovery of certain contemporary documents some light has been thrown upon the darksome deeds they are said to have perpetrated. From an examination of these records, on the one hand it would appear that certain members of the family were not so black as tradition has painted them, and on the other there seems little doubt that some of the Borgias were guilty of terrible and sinister deeds, which were only too common in the times in which they lived.

The Borgias, who were of Spanish origin, migrated to Italy and came into notoriety in the time of Pope Calixtus III, about the year 1455. The first member to come into prominence was Rodrigo, who was born in 1431, and who began life as a soldier. Afterwards, through the influence of Calixtus he entered the priesthood, and finally rose to be the head of the Church under the title of Pope Alexander VI. He is said to have had five children by his mistress Vanozza de Cattanei, viz. : Pier Luigi, who died in infancy, Giovanni Duke of Gandia, Giffredo Count of Cariati, Cesare, afterwards Duke of Valentinois, and Lucrezia, who eventually became Duchess of Ferrara.

Alexander himself is described by contemporary writers as "a handsome man of majestic and kingly bearing," and is said to have looked "more like a Cæsar returned to life than a Vicar of Christ."



POPE ALEXANDER VI.

(*From the painting by Pinturicchio in the Vatican.*)

As his children grew up he loaded them with titles and honours. When he came to the papal chair Cesare was about twenty-two years of age and Lucrezia between thirteen and fourteen. He recognized all of them in special Bulls, except Cesare, from whom (in order to bestow the purple on him) he wished to remove the stigma of his origin, and declared him to be the son of Vanozza and Domenico d'Arignano. This is proclaimed in a Bull dated October 17, 1480.

In the early part of 1498 a youth was introduced to the household called Romano, who the Pope declared was the son of Cesare and created him Duke of Nepi, and presented him with large estates. According to documents discovered by Gregorovius, dated September 1, 1501, the Pope himself was the real father, and the maternity of this boy involves one of the most obscure mysteries of the history of the Borgias.

Before Alexander obtained the pontificate, he had betrothed Lucrezia to a Spanish gentleman, but he broke off the engagement with the evident object of marrying his daughter to a man of higher rank, and on June 12, 1493, Lucrezia was espoused to Giovanni Sforza, Lord of Pesaro. The marriage was not by any means a happy one, and at the end of four years was dissolved by the Pope, who had other motives in view, for he soon arranged a fresh alliance between Lucrezia and Alfonso Duke of Bisceglie, the natural son of Alfonso II, King of Naples. The marriage took place, but soon after the birth of their first child, the Duke was attacked by several men and severely wounded. The story is thus told by a chronicler :—

"On the night of July 15 (1500) on which solemn ceremonies were taking place to celebrate the jubilee of the Pope, a young man staggered headlong into the pontifical apartments, endeavouring to stem with his hands a stream of blood which gushed from a large wound in his chest. It was the Duke of Bisceglie, Alfonso of Aragon, Lucrezia's second husband. Consternation was caused when it was spread abroad that a band of assassins in the pay of Cesare had attempted to assassinate him near the steps of St. Peter's when on his way to the celebration. The young man, who is said to have been of a kind and gentle nature, fell unconscious at the feet of the Pope. Lucrezia and his sister Sancia, who were standing by, both fainted away and were carried into

a room of the tower behind the Pope's chambers. He is said to have been nursed by the two women and to have nearly recovered, when one night in Lucrezia's absence he was strangled with a cord in bed under the eyes of Cesare."

Lucrezia then retired for a time to the estate of Nepi. On her return to Rome, she appears to have acted as a kind of secretary to her father the Pope, and in about twelve months her betrothal to Alfonso d'Este, the eldest son of the Duke of Ferrara, was announced, and the marriage took place by proxy on December 20, 1502. Shortly afterwards she left Rome to take up her residence in Ferrara.

From father to children, who apparently put no restraint on their criminal and sensual instincts, it was not long before the most extraordinary stories were circulated about the Borgias. Cesare, in particular, appears to have been a degenerate of the worst possible type. He was first made bishop of Pampeluna and afterwards Cardinal of Valenza, and appears to have been even a worse character than his father. Tragedies in the family began in 1497 when Giovanni Duke of Gandia, the second son, was found in the Tiber, his body being pierced with ten wounds from a dagger. According to Scalona, suspicion rested on Sforza Count of Pesaro.

Cesare conceived a violent jealousy of an attendant in his sister's household, named Pedro Calderon, who was probably a Spaniard. In a fit of passion he is said to have pursued the man with a dagger right into the pontifical apartments and assassinated him in the presence of the Pope, "even so," says the chronicler, "that the pontifical garments were splashed with blood." According to Capello, "four hired ruffians carried his body to the Tiber, tied a large stone to his neck and threw him into the river."

Public feeling now began to be aroused against the Borgias, but Alexander kept on his way serenely, in spite of the wave of contumely which seethed round the papal throne in Rome. Sannazaro's couplets, Pontano's epigrams, and the reports let drop by the Mantuan and Venetian ambassadors of the grave rumours but whispered in Rome, were followed by the accusations of bishops and even of some cardinals, but nothing was done.

In justice to the Borgias one must try to visualize the

condition of the people in Rome at this period. Poison may be said to have become a common weapon in the social and political life of the country. For the politician it was a weapon which procured him office, for the theologian a secret method of removing an enemy from his path, and so on throughout the whole social strata. Superstitions were rampant, and according to a writer of the time, even the worst criminals would make the sign of the Cross on passing before a church and supplicate the Madonna to give them help and profit in their crimes. Scarcely any value was attached to human life, and those in prominent positions lived in a constant state of insecurity. No wonder that vendors of amulets, talismans and antidotes to poison flourished everywhere.

Apollinaire paints a lurid picture of the Borgias in his account of a fête held in the vineyard of St. Peter-in-Chains, in the following words :—

" La Vanozza de Cattanei receives the cardinals and the ambassadors, and after being introduced to one another, the guests disperse about the vineyard and exchange conversation and courtesies. Later she disappears and joins Cesare in a room on the first floor of the building. She finds him with his sleeves rolled up, bent over a kneading trough, and absorbed in his task. This room was reserved for Vanozza and Cesare ; only the Pope shared with them the right of entry, no one else was allowed to cross the threshold. On the floor lay several large shallow copper dishes, some of which were entirely covered with verdigris, and from which a colourless-looking liquid was being evaporated. One of these dishes was always placed near the fire in order that the heat might hasten the evaporation.

" As La Vanozza enters Cesare remarks : ' Yet I forbade you to make a fire.'

" ' I only put a few live coals to hasten the result,' she replies. ' I did not make enough for it to be possible for the powder to scorch ; if I had not done it we should not have had the powder to-day ! '

" ' It is not so much for fear of its scorching, but because of the cinders which mix with the powder and render it less fine,' said Cesare. ' Happily Cardinal di Riaro is short-sighted. This is quite enough for him in any case, but for others, hand me the tart dish,' he continues. ' It should be dry by now.'

" La Vanozza lifts the heavy red copper dish by the two handles, and on it may be noticed a mouldiness, or greenish spots caused by a settling deposit. With a hare's paw Cesare collects this powder, then with an ivory knife he carefully scrapes the copper, and mixes the residue in a marble mortar. From it he takes in small pinches some of the powder and places it in another mortar of agate, and reduces it with a pestle to an impalpable dust until it is like a morsel of polished silver.

" ' Give me the " manna," ' says Cesare. La Vanozza hands him the arsenic which he calls by that name, and he mixes some with the powder in the mortar, passing the mixture again under the pestle until thoroughly incorporated, and then, his task completed, he stands erect and exclaims, ' God said " Let there be light " and there was light. We Borgias are able to say " Let it be night," and night it shall be.' He then remarks to Vanozza, ' It is time for luncheon.' La Vanozza leaves him and retraces her way ; when she is gone, the copper dish being empty, he pours urine in it in order to replace that which has evaporated, the salts of which he had just utilised. The salt which resulted, combined with the verdigris were then mixed with arsenic and this formed the famous poison which the Borgias called ' La Cantarella.' ' That which the Borgias utilized in conjunction with arsenic without knowing it,' says Apollinaire, ' was phosphorus, a secret which had been divulged to the Borgias by a Spanish monk, who also knew the antidote for it, as well as an antidote for arsenic ; one sees, therefore, that they were well armed.' "

There is no evidence to prove the truth of Apollinaire's statements, and he may only have recorded the reports common at the time. These records are, however, useful to compare with the statements made by other contemporary historians.

An astrologer is said to have predicted to Alexander that he would never die so long as he carried on his person a box containing the Blessed Sacrament. This gold box is stated to have never left his person. On a certain day he is said to have invited those who had been nominated as cardinals to supper with him. Suspicious of their host the commanded guests were doubtful of acceptance, and only agreed to come on condition that the supper took place at the house of the Cardinal de Corneto. Alexander and his son

CESARE BORGIA.

(From a painting ascribed to Raphael.

Cesare are stated to have bribed the chief attendant of the Cardinal for a large sum and pledged him to serve certain wine at dinner to which they had added poison. The evening arrived, and Alexander, as he entered the room, remembered he had forgotten the box containing the Blessed Sacrament. He at once ordered Monsignor Caraffa to fetch it ; Apollinaire, who records the story, says, " While Caraffa obeyed, the Pope irritated by his forgetfulness, asked that a drink should be brought to him before seating himself at the table. The chamberlain in attendance said he would see the order was carried out, but it happened that the chief attendant whom the Pope had bribed was absent at the moment, and the chamberlain who came for the wine was served by an underling who was in ignorance of the plot. A goblet was filled from the poisoned caraffe which had been prepared by Cesare and taken to the Pope. Directly after Caraffa arrived, bringing with him the missing box. It was, however, too late ; the Pope had drunk some of the wine and was already feeling the effects of the poison. Cardinal Valentinois himself lay convulsed upon the ground, surrounded by the others kneeling round in absorbed awe and murmuring Pater Nosters. Alexander appeared to suffer greater agonies than the rest. Surgeons were called in and bled him without any effect, and he succumbed on the eighth day afterwards."

Sanuto gives another account of Alexander's death.

" The death of Pope Alexander VI," he states, " occurred in the following manner. The Cardinal Datary Arian de Corneto having one morning received a message from the Pontiff stating that he intended in company with his son Cesare, the Duke of Valentinois, that evening to pay the Cardinal a visit and to sup with him, and that they would bring their supper with them, was terrified at the intelligence, being fully impressed with the conviction that His Holiness or his son intended poisoning him to possess his treasure, the said Cardinal being very rich. Thinking rapidly over the matter he saw but one means of saving his life. He immediately sent to the head carver of the Pope requesting he would oblige him by visiting him as soon as possible. The carver obeyed the request and the Cardinal having conducted him to a private room placed in his hand ten golden ducats which he requested the said carver to accept as a proof of the love

he bore him. After many objections and simulated repugnance the carver accepted the gift, stating that he did so from obedience to the orders of his Eminence. The Cardinal then finding the carver willing to lend a ready ear to anything he might say, addressed him in the following manner: 'You perfectly well know the intentions of the Pope and that he and his son have determined that I shall die by poison, which will be administered to me this evening and I now humbly beg of you to spare my life.'

"After some demur the carver told him the manner in which it had been agreed between them that the poison should be administered. After supper was over he had been ordered to place on the table three boxes of confectionery one of which was to be placed before the Pope, another before the Cardinal, and the third before the Duke of Valentinois, taking care to place the one containing the poison before his Excellency. The Cardinal begged and implored the said carver to change the manner in which the confectionaries were to be placed on the table so that the one containing the poison should be put before the Pope, that he might eat of it and die. The carver at first was horrified at the suggestion, but on the Cardinal offering him 10,000 ducats in gold as a reward he relented and agreed that the box of poisoned sweetmeats should be placed before the Pope.

"In the evening of the same day the Pope accompanied by the Duke arrived at the palace of his Eminence, who as soon as his Holiness had seated himself flung himself on the ground before him and kissed his feet. Then with most affectionate words he begged his Holiness would grant him a favour saying he would never rise from his knees should his Holiness refuse to oblige him. Surprised at the extreme earnestness of the Cardinal, the Pope asked him to rise from his knees and explain his request. The Cardinal however persisting, the Pope was surprised at the perseverance of his Eminence and promised to grant him any request he might make. The Cardinal then rose from his knees and said, 'It is not respectful that when the lord honours his servant with a visit his servant should eat at the same table with his lord and the favour I ask of you is just and honest. It is that you will allow me during your repast to wait on you as your servant.' His Holiness to please the Cardinal granted his request. After the supper was over, the Cardinal placed on the table the boxes of sweetmeats, having first received information from the carver which was the one containing the poison, and that

the Cardinal placed before the Pope, who under the impression that the one before him did not contain the poisoned sweetmeats ate one of them gaily, and of the other which he believed contained the poison, the Pope pressed the Cardinal to eat, who obeyed him without hesitation. Shortly after His Holiness had departed he fell ill and the next morning died ; while the Cardinal, who still having some fear that the sweetmeats he had eaten might have been poisoned, took an emetic and thus escaped the danger with which he had been threatened."

Lecontour agrees with the account given by Apollinaire in the following words :

" It should be called to your notice that this death has been the subject of many discussions and that the documents transmitted differ very much. Here are some opinions on the subject, and first of all there is the description of the corpse of the Pope by the Marquis of Mantua, in a letter written to his wife Isabella, and then the testimony of those who approached the body and which is made to disquiet us. Here is one :—

" Immediately after his death, the Pope became black and so deformed, so prodigiously swollen that it was hardly possible to recognise him, putrefied matter flowed from his nose, his mouth was open and in so terrifying an attitude that one could not look at it without horror, nor suffer the stench without fear of being infected."

In a further letter written by the Marquis of Mantua at the time, he says :

" His body has become putrefied, foam comes from the mouth as from a saucepan on the fire. This has lasted as long as he has remained unburied. He has swelled so enormously that he no longer has the form of a human being, and it is impossible to distinguish between the length and the breadth of the body.

" No one would touch this mass of flesh and putrefaction. No one would put it in the coffin. Those who approached it fell asphyxiated.

" In the end two street porters were found who consented to drag it, by means of cords which were attached to the legs of the death bed, as far as the vault where they let it

drop. The flesh detached itself during the transit, leaving a track of putrefying fragments."

Portigliotti, writing of the death of Alexander VI, states :

" There was no religious rapture at his death-bed, no holy prayers beside his corpse. As soon as he had breathed his last, Cesare, who was keeping to his own rooms on pretence of illness, sent his trusted squires to close all doors which gave access to the papal apartment. One of them (says Burckhardt) drawing a dagger threatened Cardinal Casanova that he would cut his throat and throw him out of the window if he did not give him at once the keys of the pontifical treasury ; the cardinal, terrified, gave them to him. The strong-boxes soon yielded piles of golden ducats, while the servants rifled the wardrobes and rooms, leaving only a few cloth tapestries fastened on the walls.

" The Pope's body, washed and clothed, was placed in a room between two wax candles. None went to recite over it the prayers for the dead, none watched it that night. The next morning it was borne, uncovered according to rite, into St. Peter's Church. The cardinal who presided at the function fearing that some one would gash it out of personal spite, had it brought into a chapel behind a very high and resistent iron grating. ' Vultus erat sicut pannus vel morus nigerrimus,' writes Burckhardt, ' livori totus plenus, os amplissimum, nasus plenus, lingua duplex in ore, que labia tota implebat, os apertum ed adeo orribile quod nemo videns unquam ad esse talem dixerit.' The orator Costabili mentions that evening in a despatch ' the Pope's body has been all day in St. Peter's, an ugly thing to see, black and swollen . . . and many do not doubt he has been poisoned.' "

To counteract the rumours of poisoning which the rapid decomposition of the body was arousing, it was thought well to keep it covered by day and only to leave it exposed in the evening. But at night, by the yellowish, flickering and smoking light of the candles, Borgia appeared still more horrible and terrifying : a repulsive fetor emanated from that black and putrefying flesh. It was therefore decided to enclose it without more ado in the bier. Two joiners and six porters " ludentes et blasfemantes sive contra papam sive in spretum cadaveris," " had no small difficulty in pushing it into the coffin, which had become too narrow ; and because

the stench and the heat were unbearable, they hastened their task without any regard, and forced it in with hand and foot. No priest was present at the funeral operation, not a candle was lit."

In the morning, there was found on the bier these couplets :

" Quis jacet hic. Sextus—Quis funera plangit ? Erymus.
Quis comes in tanto funere obit ? Vitium.
Et quae causa necis ? Virus pro homina, virus,
Humane generi vita salusque fuit."

The Venetian Giustinian who attended him in his last hours wrote the significant words, " Very near the end of the tribulation of Christendom," and a Bolognese priest, noting the date of his death in the margin of a document, says, " To-day he is descended to hell where he was born."

On the other hand, Burckhardt, whose account is generally favoured, states that the Pope was attacked by a fever on August 12, 1503, and on the 16th he was bled, the disorder seeming to become a tertian. On the 17th he took medicine, but the following day he became so ill that his life was despaired of. He then received the viaticum during mass, which was celebrated in his chamber, at which five cardinals assisted. In the evening extreme unction was administered to him, and a few minutes afterwards he died.

This account is corroborated by Muratori, who quotes many authorities to show that the death of Alexander was not caused by poison, and the balance of evidence certainly seems in favour of the theory that, despite all his crimes, Alexander VI died from a natural cause, and that probably a fever of virulent type.

Thus ended Alexander VI, after a pontificate of eleven years, on August 18, 1503.

According to a chronicler of the time :

" Cesare Borgia survived his father, and his life was saved because he had himself plunged into the stomach of a living mule, but on his recovery he lost both his power and his prestige. The Pope Julius II, after the very short pontificate of Pius III, which only lasted twenty-one days, ordered his arrest when he was the master of all Central Italy, after having arrested Varano, Vitelli, the Orsini and the Baglioni. Cesare resisted for a year, sustained by the unimpeachable fidelity

of his captains and soldiers. He yielded at last in 1504, was liberated again, but fell into the hands of Gonzalo di Cordova, who sent him to Spain. Having escaped, he took service again in the capacity of commander under his father-in-law, the King of Navarre. He died in 1507 in a fight, pierced by a javelin.

Another historian gives the following account of the end of Cesare :—

"At the time of his father's death Cesare Borgia was sick in bed, his illness it is said being caused by swallowing a portion of the poisoned sweetmeats which cost his father his life. Cesare it is related partook of the poisoned sweetmeats in error and omitted to carry out the advice of Macchiavelli always to carry an antidote with him."

It is probable that he was suffering from an attack of the same fever which his father had contracted.

On hearing of the Pope's death, although unable to leave his room, he at once sent one of his emissaries with several armed attendants to take possession of the palace and allow no one to enter until he had taken away his father's treasure.

As time went on he became more and more unpopular, and public feeling was very strong against him. After some time it was arranged that he should be allowed to quit the Ecclesiastical States. Three days were given him to leave the city, but after the election of Julius II he again returned to Rome. Feeling was still strong against him, and he decided to journey to France to seek the assistance of the King. The King of Navarre gave him command of a troop of horse, and in a small battle under the walls of the castle of Viana Cesare was killed.

Remorsi says :—

"The Duke of Valentinois did not die, because God willed that as a greater scourge this ambitious and cruel spirit should survive fortune and grandeur and see his most down-trodden enemies in power, for the strength of his temperament and of his youth overcame the poison, being aided by good remedies which the doctors gave him. Some of them assert that the most efficacious remedy employed was that of putting him several times into the body of a bull or mule opened for the purpose, like Ladislas, King of Naples, who was delivered

LUCREZIA BORGIA.

(*From the painting by Pinturicchio in the Vatican.*)

in this manner from the poison which was given to him in his youth.

"Others write of having heard the said Cardinal (di Corneto) say in the villa where he took the poison, how he was plunged into a great vessel of cold water, from which he was not taken until his skin had been entirely removed in pieces, because his intestines were completely burned. However his cure was effected, he remained extremely oppressed by the illness for a long time and at a time when he had most need of perfect health in order to remedy the revolution of his affairs. So that he constantly had reason to complain of his reverses of fortune."

Cesare's death was lamented at least by one person, and that was his sister Lucrezia, who at once set out for the Monastery of Corpo di Christo to offer prayers for his soul, where she remained for two nights.

Some of the entries in the book of her household expenses are interesting, and throw a light on the remuneration paid to a Court physician of the time.

In 1507 is an entry:—

"To Maestro Ludovico physician to Her Highness 110 lire for the balance of his salary.

"On the 31st December 240 lire as a year's salary for her Highness's physician Maestro Ludovico at the rate of 20 lire a month."

Patroness of poets and painters in her latter days, Lucrezia made herself popular in Ferrara. In the Library of Modeno is a list of her magnificent jewels which she sold to free her husband from the debts he contracted during the wars in defence of his territories. Many of her letters still extant show that during these troublous times the relief of the poor, sick and needy was Lucrezia's constant care. She died during her confinement on June 21, 1519. The accouchement had been long and difficult and the officers and servants of her household were clustered at the foot of the grand staircase leading to her room. Great fears were entertained of her recovery, and they waited in breathless silence for every sound from the apartment. "At length," says the chronicler, "Maestro Alberti, the Court Apothecary, was seen descending the staircase with an ewer in his hand. All pressed forward to ask him

where he was going. He replied significantly, 'To get some rose water to wash the body of the duchess.'"

Thus ended Lucrezia Borgia, Duchess of Ferrara, who, to quote a letter written by a cousin of Federico Gonzaga who was present in Ferrara at the time, was "one who appears to have been universally beloved not only for the habitual piety of her life, but for her unbounded charity and kindness of heart."

Lucrezia has been accused of being guilty of the worst possible crimes, including that of poisoning, but there is practically no historic proof of the truth of these stories. It is probable that many of the infamous crimes of her brother Cesare were attributed erroneously to her.

The composition of the so-called "Cantarella," the poison said to have been employed by the Borgias, has long been a subject of dispute. According to Paolo Jovio, it was "a kind of whitish powder, that to a certain extent resembled sugar, and which had been used on a great many poor innocent people who died in a miserable state."

Carelli, physician to Charles VI, gives the following account of how it was prepared. He states: "The abdominal viscera of a sow which had been poisoned with arsenic were powdered with arsenious acid; they waited until the putrefaction was complete and the liquids which flowed from it were then concentrated by evaporation and constituted a white powder which was called 'La Cantarella.'" Apollinaire's account of its preparation has already been given, from which it may be concluded that it consisted of a mixture of subacetate of copper and crude phosphorus.

Several other contemporary writers claim to give the true method of its preparation. One states that a bear was killed, then cut open and treated in a similar manner and the liquid that dripped from it formed the poison.

It is evident that this method of preparing a venom was employed by some of the Italian poisoners and was known at the period. The combination of the animal poison contained in the products of putrefaction, together with arsenic, would no doubt furnish a poisonous substance of a very powerful nature, but whether the Borgias ever used such a preparation there is no evidence to prove.

"A CUP OF WINE WITH CESARE BORGIA."

(*From a painting by the Hon. John Collier.*)

Reproduced by kind permission of the artist.

Baron Corvo, in his *Chronicles of the Borgias*, scouts the idea that the family possessed any such secret, and denies that the venom ever existed. The probability is, that when the Borgias found it necessary to use a poison for nefarious purposes they employed arsenic, which was so commonly used in Italy at that period. The fact that Cesare Borgia's signet ring contained a secret receptacle which might easily have been used to carry arsenic, goes a long way to substantiate this conjecture, and is the strongest evidence we have that he at least used a very powerful poison to carry out his evil designs.

In connection with the Borgia poison there is an interesting story that the secret of its preparation perished with the Duc Riaro-Sforza, who died in Paris about the middle of the nineteenth century. Before his death, one evening at the opera the Duke is said to have confided to a distinguished critic, who occupied the neighbouring stall, that he still possessed the secret of the famous poison, although for centuries it had lain idle in the family archives. Its composition was, he added, simpler than generally supposed, and not long afterwards he told his friends that, feeling age advancing and having no direct heirs, he had thought it best to burn the recipe lest it might fall into bad hands.

CHAPTER XIII

POISON MYSTERIES IN EARLY SCOTTISH HISTORY

ACCORDING to ancient historical records Scotland had its poison mysteries in early times.

In the year 1332 Thomas Randolph, Earl of Moray, who on the death of Robert Bruce was appointed Regent during the minority of the young King David the Second, is said to have been a victim to poison.

Hector Boece, in his *Cronikles of Scotland*, boldly attributes his death to the malice of Edward III, King of England, who, he states, "tuk purpos to sla him be venome." The fatal draught is said to have been administered to the Earl by a monk who had been sent by the English King as a physician, with the result that the unfortunate Moray found "certaine dolouris ilk day mair increasing in his wame," and died very suddenly.

The Duke of Albany, younger son of James III, according to a chronicler, was also "posonit in oure Souverane lordis presens and palas," which caused "a sclandir and murmur rising in the cuntre," but by whom it was administered it is not known.

In 1497 Margaret Drummond, mistress of James the Fourth, is said to have been poisoned, with her two sisters, at the instigation of the nobles who wished the king to marry.

In 1536 Jean Douglas, Lady Glamis, grand-daughter of "Bell-the-Cat," was tried for having removed her husband some years before *per intoxicationem*, and for having conspired to dispose in the same way of King James the Fifth, who had put the whole Douglas family under ban. She was *convicta de arte et parte proditorie conspirationis et imaginationis interfectionis sive destructionis nobilissime personne serenissimi domini nostri Regis per pessimum venenum lie poysone*, and

condemned to "be had to Castell hill of Edinburghe and their Brynt in ane fyre to the deid, as ane Traytour."

Another case of alleged poisoning famous in Scottish history is that of the Earl of Atholl, Treasurer of the Kingdom, who died suddenly after a reconciliation feast given by the Regent, Morton. Atholl, a near kinsman of the King, was a Catholic; Morton "a licentious man, but a fervent Protestant": the two men were, besides, rivals in the State. It was generally believed at the time that Atholl was poisoned by Morton, and so clamorous did the popular indignation become, that by order of the Privy Council an inquest was held in the presence of the King and his Councillors. Six surgeons were appointed to make a post-mortem examination. James Owhegarty, "Ireland man born leiche that ministratis medicine in the mouth and curis outward be herbis," testified that the cause of death was "rank venom" introduced by the mouth. The testimony of Alexander Prestoun, "Doctour in Medicine," and George Boswell, "Mediciner and Chirurgiane in Perty," was to the same effect. Gilbert Moncrieff gave a more guarded opinion; he considered the humour in the stomach to be venomous, but was unable to say whether it was exterior or interior grown within the body. David Rattray, "Chirurgiane in Conpare," gave it as his opinion, that death was caused by "ane extraordinarie poyson," adding that "ane spune put in the humour change it in the cullour of brass." R. Craig, "Burgess of Edinburgh, chirurgiane," cautiously opined that the Earl "to all appearance" had died of poison. A non-medical witness thought that a red matter shown to him by Dr. Prestoun was "a cauld poyson." Several ministers also gave testimony, one of them stating that he saw "strange and unnatural tokens in the stomach, black and red, as it were the dregs of bread and wine mixed, and that he had heard the dead man say "that he had got offence, and God forgive them that had done it." Bernardino de Mendoza, the Spanish Ambassador, writing to his King, gives the following description of the inquest:—

They had opened the body in the presence of five doctors, three of whom said he had been poisoned, and two that he had not. One of the latter, to assure them that he was right, by proof, took some of the contents of the stomach on his finger,

and put it into his mouth. The effect was that in a few hours he was thought to be dying. It is not known whether the order to poison him came from Morton or some private person.

In the end "the physicians did upon their oath declare that his death was not caused by any extraordinary means." The result of the inquest did not, however, allay the general suspicion, and Morton thought it necessary, when he was about to die on the scaffold in 1581, to make a solemn declaration, that he "would not for the Earldom of Atholl have either ministered poison unto him or caused it to be ministered unto him."

Shortly after the death of Robert Stewart, Earl of Orkney, who was an illegitimate brother of Queen Mary, a quarrel arose between his eldest son Patrick and his young brothers, John, James, and William Stewart. Eventually the latter were suspected of conspiring to poison their brother, who had succeeded to the title, and in 1596 we find the three brothers, John, James and William, were brought to trial and accused of having "conspyrit and dewysit how to murthour the said Patrick Erl of Orkney his brother, be poysoning or utherwayes be craft and guylt dealing," in November, 1593.

The Earl, it appears, captured his brother's servant, who confessed he was hired to do the deed. This confession, however, was only extorted from him after being tortured eleven days and nights in the "cashie-lawis," put in the "buitis" twice a day, and "skargeit with towis."

Tried on the charge of plotting to murder the Earl at a banquet in the house of David Moncriefis of Kirkwell in Orkney, John was acquitted.

Another Scottish noble, George Home, Earl of Dunbar, is said to have been poisoned by "tablets of Sugar given him for expelling the cold" by Secretary Cecil in 1611. A post-mortem examination was made by one Martin Souqir, a doctor, who is said to have tried the poison by laying his finger on the subject's heart and touching it with his tongue" (a curious clinical test for poison on which apparently great reliance was placed at that period), with the result that he died within a few days thereafter.

CHAPTER XIV

HISTORIC POISON CASES IN FRANCE

IN the latter part of the sixteenth century the mania for criminal poisoning spread from Italy to France. The practice increased with great rapidity, and poisons appear to have been commonly employed by those of the highest to the lowest classes of society, to get rid of enemies and undesirable persons. It is stated that the Prior of Cluny and his valet Saint-Barthélemy, with grim humour, even poisoned their physicians in order to avoid paying them. It may be said of the many stories of poison mysteries in France that have come down to us from the seventeenth century, that though their truth may be doubtful they are not without romantic interest.

Jeanne d'Albret, mother of Henry IV, who died of a fever after four days' illness, was generally believed to have met her death by wearing poisoned gloves. So great was the credibility of the stories spread abroad after the sudden death of many distinguished persons, that in this case it was believed that the gloves were placed in a box with a double bottom, beneath which was placed a mixture of opium, belladonna, hyoscyamus, and other poisons. These were supposed not only to have impregnated the gloves but to have been administered to the victim while asleep, the box being exposed under her nostrils.

Francis II, the first husband of Mary Queen of Scots, who died in 1560, was supposed to have succumbed to poison, and Beaucaire de Péguillon goes so far as to charge Ambroise Paré, the great military surgeon, with having been the cause of the crime. As a matter of fact, it was proved from an investigation by Courladon a few years ago, that Francis, who was born with an obstruction of the nose and mouth, probably due to adenoids, died from chronic suppurative otitis.

The Duc d'Albe asserts that Mary Stuart was the cause of his death, but John Knox was nearer the mark when he wrote on hearing of it : "The potent hand of God from above sent unto us a wonderful and most joyful deliverance ; for unhappy Francis, husband to our Sovereign, suddenly perisheth of a rotten ear . . . that deaf ear that never would hear the truth of God."

A curious method of introducing poison is recorded in the story of the Cardinal of Lorraine, uncle of Mary Queen of Scots, who is said to have died after touching poisoned gold coins. As a matter of fact, there is evidence to show that his death was due to pleurisy caused by a cold caught in walking barefooted at the head of a procession at Avignon. Catherine de' Medici was credited with having poisoned her three sons, Charles IX, the Duc d'Anjou and Francis II, but the story has apparently no foundation.

Towards the end of the sixteenth century a romantic case connected with poison, which caused great consternation in Paris, was that of the death of Gabrielle d'Astrées. The divorce proceedings between Henry IV and Marguerite de Valois were almost complete, when all preparations for the marriage of the King to Madame d'Astrées were brought to a sudden end in Holy Week, 1599, by her mysterious death. A post-mortem examination made by the doctors threw no light on the cause of death, and hints began to be spread abroad that she had been secretly poisoned by the Grand Duke of Tuscany. According to the story, she had arrived in Paris on Tuesday, April 6, and on the following Thursday, while in the Church of Saint-Antoine, she was taken ill with headache and vertigo and had to leave before the end of the service. Severe convulsive attacks followed, which increased in violence and frequency, until she lost consciousness and died during the night of April 10. The cause of her death remains a mystery.

The seventeenth century saw a still greater increase in the mysterious deaths in France attributed to poison. On June 30, 1670, Henrietta Anne of England, Duchess of Orléans and sister of King Charles II, died suddenly in Paris. It appears that after drinking a glass of cold water in her apartment at St.Cloud, she was said to have been seized with a fit of shivering, followed by acute fever, which caused her great agonies.

Consternation was caused when she declared to her ladies that she had been poisoned, and physicians were sent for in hot haste. On their arrival they were struck with her livid appearance, and, acknowledging their helplessness in giving her relief, advised her to receive the Last Sacraments of the Church without delay. The Duchess, on hearing of this, desired that Bossuet, who had attended her mother the Queen-Dowager of England, should be called in, and three couriers were immediately dispatched to bring him. Before he arrived at St. Cloud between eleven and twelve at night, she had received the Sacrament from the hands of the Abbé Feuillet, who appears to have treated her with considerable harshness. Between her shrieks caused by the violent pain, he told her that her sins were not punished as they deserved. On the arrival of Bossuet, the Duchess entreated him to promise not to leave until she breathed her last; he fell on his knees by her bedside, holding a crucifix in his hand, and with tremulous voice invited her to join him in devotion. She remembered that the crucifix which he held in his hands towards her was the same which he had given to her mother the Queen-Dowager, to hold in her agony. She took it in her hand and held it in hers till she breathed her last. Before she died she spoke to Madame de Lafayette in English, expressing her gratitude for the assistance she had received from Bossuet, and requested that an old emerald ring set with diamonds of great value might be presented to him. The Duchess died at three o'clock in the morning, and the news being conveyed to the King, he sent for Bossuet and gave him the emerald ring, placing it on his finger, and desiring him to wear it for the rest of his life.

We owe this description to Butler, who edited the life of Bossuet. The Duchess undoubtedly believed herself to have been poisoned, and the same belief appears to have been held by the English ambassador, the Court and the people of the city of Paris. It is even said that one of her household gave the name of her poisoner to Voltaire, and the medium was stated to be diamond dust strewn on strawberries with sugar. Another rumour was that she died in consequence of drinking a glass of succory water which had been poisoned, but according to Voltaire she died a natural death. This is most

probable, as she had suffered from a chronic disease of the liver for some time ; diamond dust, it may be said, is without any poisonous properties, and could only act as a mechanical irritant in the stomach.

About this time a German apothecary and alchemist named Glaser settled in Paris and, together with Exali and another Italian, began work in a laboratory they started, reputedly with the object of searching for the philosophers' stone. Having come to the end of their resources in a very short time in the pursuit of this chimera, they commenced the secret sale of poisons. Through the confessional their nefarious trade became known to the Grand Penitentiary of Paris. This dignitary gave information to the Government, and the two of the suspected chemists were promptly sent to the Bastille, where one of them died. Exali, however, while still in prison, managed to carry on his business and found ready purchasers for his secrets. Catherine de' Medici was said to have been instrumental in introducing the Italian methods into France, and deaths in Paris attributed to poisons now increased to an alarming extent. Florentine perfumers were supposed to have been adepts in mixing the poisons with sweetmeats and articles of food.

From the highest to the lowest all seem to have had the dread of meeting death in this way, and it is said that Henry IV, when a guest at the Louvre, ate only eggs which he cooked himself and drank only water which he drew from the Seine.

In 1682 it was thought necessary to devise some more drastic method of dealing with the secret sale of poisons, and a decree was issued by Louis XIV, forbidding apothecaries to sell arsenic, sublimate, or any drug reputed to be a poison except to persons known to them. It further required, that the purchaser should sign a register declaring the purpose for which he was buying the poison. A similar condition had been imposed by the local authorities in Montpellier about twenty years previously, but Louis applied it to the whole country.

The priests of Notre-Dame at length became appalled at the number of self-accusations of murder by poison made to them in the confessional, and conveyed an intimation of the fact

without names to Colbert and Louvois, then Ministers of State. The authorities were placed on the alert, and by means of a clue obtained from an intercepted letter, they arrested the Chevalier de Vanens and the Count de Bachimont, who were found to be secret purveyors of poisons. On private examination, they implicated a large number of persons, insomuch that a judicial commission was appointed by Louis XIV, by which strict justice was done, without distinction of person, condition or sex. It sat for three years and was known as the Chambre Ardente, or Chamber of Poisons, and was established at the Arsenal near the Bastille.

The stir and mystery made by the examinations of this Court apparently drew more attention to the study of poisons than before, and many began to learn how to employ them, with the object of succeeding to heritages or of ridding themselves of persons they disliked.

Among those arrested and brought before the Court were members of some of the noblest families of France, together with magistrates, priests and a number of women, who had practised as witches, fortune-tellers, *sages-femmes* and poisoners. Confessions which were extracted from these people by torture showed that systematic poisoning had for some time been carried out by the ladies of the court of the *Grand Monarque*. One of thedealers in poisons, named La Voisin, is said to have amassed in a few years a sum of money equivalent to £20,000. Another is said to have earned £1,600 a year, which is hardly to be wondered at, when it was revealed that Madame de Montespan had paid fifty crowns for a love philtre, and another lady one hundred louis d'or for a powder to administer to her husband. La Voisin and her accomplices were eventually condemned and burned at the stake, which seemed to check for a time the series of terrible crimes which spread through France during the eighteenth century.

Shortly before this the whole of the country had been aroused by the remarkable case of the Marquise de Brinvilliers, who confessed to having poisoned her father, two brothers and a sister, together with a number of people whose existence she found inconvenient, or who simply bored her. Apparently when she had no serious business on hand, she practised her art on the patients in the hospitals which she visited under the

pretence of charity. This woman, who stands in history as the most infamous of all poisoners of whom we have record, was named Marie Madeleine D'Aubray, the daughter of a magistrate named Dreux D'Aubray. She was born on July 22, 1630, and was the eldest of five children, all of whom came to occupy positions of importance. She received a better education than most women of her time, but her religious instruction appears to have been wholly neglected. According to the priest who ministered to her before she paid the penalty of her crimes, she was destitute of even a rudimentary knowledge of religion, and she appeared to have had no moral training whatever. Of a passionate temperament and extraordinary energy in anything that might serve for the gratification of her desires, she had a most complex nature, which was at once sensitive to anything that touched her vanity or self-love.

In 1651, at the age of twenty-one, she married Antoine Gobelin, the Marquis de Brinvilliers, a lineal descendant of the founder of the famous tapestry manufactory. He is said to have had an income of 30,000 livres a year, and his wife brought him another 200,000 as a dowry.

The marquise at that time is said to have been a particularly beautiful woman, and both she and her husband began their married life with every prospect of happiness. In 1659 they made the acquaintance of a Captain Sainte-Croix, a young man of good family and who was an officer in a cavalry regiment. He became a constant visitor to the house, and so ingratiated himself with both the marquise and her husband that he eventually took up his residence with them.

At the time that Sainte-Croix came to live with the Brinvilliers there were several children in the house under the care of a tutor, named Briancourt, who also was said to be one of the many lovers of the marquise. The marquis himself seems to have developed a distrust of his wife, and was ever on the watch; whether he had gleaned some knowledge of her enthusiasm in the study of poisons or not, it is difficult to say, but it is stated that at dinner he always took care that Sainte-Croix sat on the lady's right, while he occupied a place near the sideboard. He was waited on by a servant particularly attached to his person, whom he instructed never to change

his glass, and to rinse it out whenever he served him with wine.

Although suspicious that his wife was making attempts to poison him—and there is little doubt she was attempting to do so—the marquis was not without medical care. She would occasionally call in a Dr. Brayer, one of the most famous physicians in Paris of the day. According to Madame de Sévigné, Brinvilliers owed his life on these occasions not so much to his wife as to the fear of her lover, who did not relish the idea of marrying her. She states that " while the marqguise ave her husband poison Sainte-Croix gave him antidotes, so that after being tossed like a ball from one to the other in this way five or six times, now poisoned, now restored, he remained alive."

As a result of these experiences the marquis suffered from chronic weakness in the lungs. He always carried about with him a box of the theriaca or treacle of Andromachus, which was supposed to be a powerful antidote against poison. This he not only took frequently himself, but also gave it to his servants.

Sainte-Croix soon became notorious as the lover of the marquise, and her father, on hearing of this, obtained a *lettre de cachet* and had him arrested and imprisoned in the Bastille. Now it so happened that the two Italians, Exali and his confrère, were confined in the Bastille at the same time under the charge of secret dealing in poisons. As already stated, they had professed to be working in Paris in conjunction with Glaser, a German apothecary. Another account states that there is every reason to believe that long before Sainte-Croix was committed to the Bastille, he had studied the art of poisoning from this Christopher Glaser, who was Apothecary in Ordinary to the King, and author of a treatise on chemistry which had some reputation. Glaser now not only instructed Sainte-Croix but supplied him with poisons which he passed on to the marquise. On the death of the marquis, whose property had practically all vanished owing to the extravagance and dissipation of his wife, Sainte-Croix, who had by that time been released from prison, renewed his intrigue with the marquise, who, eager for revenge on her father for having him

imprisoned, and probably impatient to gain possession of the money she would inherit at his death, conceived the idea of using poison for the purpose of destroying his life.

One historian states that after Sainte-Croix had acquired his knowledge of poisons from Glaser, he confided it to the marquise, while others say that she got into direct touch with Glaser, who gave her the necessary poison which she had made up her mind to test for herself by experiment. This she did with great cunning, assuming the character of one of the Sisters of Charity, who visited the hospitals to relieve the sick and suffering and bring them cakes, wine and other luxuries. The recipients of her gifts generally soon died in great suffering, but the significance of this apparently passed unnoticed until some time afterwards. She also found subjects for her experiments among her servants, one of whom, Roussel, gave evidence at her trial at a later date and declared that her mistress had one day given her some gooseberry jam on the point of a knife and that it made her ill. She also affirmed that the marquise had given her some ham "which gave her great pain, and she felt as if she had been pricked in the heart, after which she was ill for three years."

When the marquise had satisfied herself that her method of administration was not likely to be easily discovered, she turned her attention to its use for her own purposes, and her first victim was her father. Apparently she administered poison to him in repeated doses, and it was not until eight months had passed that D'Aubray died in great agony. After his death she lived still more riotously and with the greatest extravagance, contracting very heavy debts until she ran through all the money she had obtained.

It is stated at this time that the marquise developed "a demoniac temper and inhuman cunning, such as perhaps no mortal ever exhibited."

She next began to plot to get rid of her two brothers, with the result that one of them died after three months of great suffering, and the other a few months later. She then tried to poison her sister in the same manner, but suspicion being aroused, she gave up the attempt. On the death of her second brother, the medical attendants insisted on examining the body after death, and declared that he had

been poisoned; so little, however, was his sister suspected, that the actual murderer, a servant named La Chaussée whom the marquise bribed and introduced into her brother's house for the purpose of administering the poison, had a legacy left to him by his victim for his *devoted services*. At length suspicion appears to have fallen on the marquise and Sainte-Croix, owing to an accident which happened to him after his reimprisonment. It is stated that when engaged in preparing his poisons he was accustomed to wear a mask, presumably to prevent him inhaling the fumes of the chemicals which he was using. While thus engaged, he was found one day in a state of unconsciousness in his cell and never recovered. The authorities, on examining his effects, came across a small box to which a paper was attached which contained a request that after his death it should be delivered to the "Marquise de Brinvilliers who resides at the rue Neuve Saint-Paul." The paper was signed and dated by Sainte-Croix, May 25, 1672, and on the box being opened it was found to contain a number of poisons of different kinds with labels attached. It is also said that he kept in this box a number of compromising letters which he had received from her, together with bonds for large sums which she had given him as hush-money in the matter of her brother's murder.

According to another account, as no relations of his were known, the authorities proceeded to put seals upon his property. When the inventory was taken a casket was found, which was opened, and the first article discovered in it was a written document, which ran thus:—

"I humbly entreat those into whose hands this casket shall fall to do me the favour to place it in the very hands of Madame de Brinvilliers, who resides in the Rue Neuve Saint Paul, the contents appertaining to her and to her only, and being moreover of no use to any one else in the world. In the event of her death taking place before mine, it is my desire that the casket and all its contents be burned, unopened and undisturbed; and that none may plead ignorance, I swear by God whom I adore, and by everything that is most sacred, that nothing is here said save what is most true; and if, by any chance, my request be contravened, just and proper as they are in this point, I charge such contravention upon their

conscience, both in this world and in the next, in discharge of mine own conscience. And this I say and sign as my last will.

"Signed, DE SAINTE-CROIX.

"Done at Paris, this afternoon of the 25th day of May, 1672."

Underneath were added the following words :—

"There is one single packet, addressed to M. Penautier, which must be restored to him."

"Precautions too elaborate frequently produce an effect the opposite of that intended," says the historian. "If in this casket, which was securely locked up, there had been the mere words, 'This casket belongs to Madame de Brinvilliers,' it is probable that it would have been forwarded to her unopened, but the very style of the injunction was calculated to arouse suspicion. The casket was opened, and an inventory made of its contents, and the following is the description of this deposit which was so solemnly placed under the safeguard of God and of all things sacred" :—

1. A packet, sealed with eight seals of various armorial bearings, and endorsed : "Papers to be burned in the case of my death, they being of no value to any one. I most humbly entreat that they be burned by whomsoever may find them. I even charge it upon their conscience to do this, and to do it without opening the packet." In this packet was enclosed another, which contained sublimate.

2. Another packet, secured by six seals of various armorial bearings, similarly endorsed, and enclosing another packet, consisting of a pound and a half of sublimate.

3. Another packet, secured by six seals of different armorial bearings, in which were three other packets, one containing half an ounce of sublimate, a second containing two ounces of Roman vitriol, and the third calcined and prepared vitriol.

4. A large square phial full of a clear light liquid, the quality of which could not at the moment be ascertained.

5. Another phial of light-coloured liquid, at the bottom of which was a whitish sediment.

6. A small earthenware jar, in which was a quantity of prepared opium.

7. A folded paper, in which were two drachms of corrosive sublimate, in powder.

8. A small box containing "Infernal Stone."

9. A paper containing an ounce of opium.

10. A piece of regulus of antimony, weighing three ounces.

11. A packet of powder marked. . . .

12. A packet secured by six seals, superscribed like those already described. This packet contained twenty-seven pieces of paper, on each of which were the words, "several curious secrets."

The first care of the civil authorities was directed to a careful examination of these substances, to have them analysed, and to experiment with them upon animals.

The result of that examination and those experiments was very curious, and the following is the report which was made by the chemists and men of science to whom the examination was entrusted.

"This artful poison" [it runs] "defies the researches attempted to be made into its nature; it is so disguised that it cannot be detected—so subtle that it defies all the science and ability of the doctors. Upon this poison all experiments blunder, all rules are false, and all aphorisms absurd.

"The most certain and usual experiments are made by means of the elements, or upon the bodies of animals. In water the weight of the poison precipitates; it is the superior must needs be precipitated. No less sure is the action of fire; it evaporates, it dissipates, it consumes all that is innocent and all that is impure, with the exception of a sharp and acrid substance which alone can resist its effects. Upon animals the effect of poison is even more obvious; it carries malignity into every part which it touches, vitiating, burning, and withering up the whole internal economy as with a strange fire.

"The poison of Sainte-Croixhas been subjected to all trials; it defies all the skill and science of the doctors, and mocks and baffles all experiments. This poison swims in water instead of sinking, and it escapes from the test of fire, leaving behind only a mild and innocent substance. In animals it so completely hides itself that it cannot be detected; all the parts of the poisoned animal remain living and sound even while it is shedding death all around it.

"All sorts of experiments have been tried upon this poison. In the first instance some drops of a liquor contained in one of the phials were poured into oil of tartar and water. No precipitate was formed in the vessel.

"In the second experiment some of the same liquid was poured into a sanded vessel, the sand retained no acridly tasting substance. The third experiment was made upon a turkey hen, a pigeon, and a dog; they died in a brief space, and on their being opened on the following day, only some coagulated blood was found in the ventricles of the heart.

"Another experiment was made with some white powder, which was given, with some mutton, to a cat. The cat vomited for half an hour, and on the following day was found dead; it was opened, and no interior part showed marks of the action of the poison. A second trial of the same poison was made upon a pigeon, which died in a short time. When opened the bird had only some red liquid in its stomach."

"Such," according to the historian, "was the dying present of Sainte-Croix to his mistress. His past crimes being insufficient to gratify his malignity, he was fain to be the accomplice of future crime."

According to Dr. Nass, Sainte-Croix died a natural death after an illness of several months. To continue the story, when the marquise heard of his death and the discovery of the box, she at once made every effort to obtain it by bribing the officials, but failing in this she fled to England, and after much negotiation between Louis XIV and Charles II as to her extradition, she escaped to Holland, where she took refuge in various convents, until at last she was arrested at Liège. She attempted to commit suicide by swallowing fragments of broken glass and pins, and other methods, which are described by Madame de Sévigné.

A romantic story is told of her arrest, which was made by an officer called Des Grais, who was sent from Paris to apprehend her. Finding he was unable to remove her forcibly from the convent, he disguised himself in the dress of an abbé and so found access and the means of making her acquaintance. Assuming the character of a lover he induced her in this way to accompany him on a pleasure excursion, but once outside the building he arrested her and conveyed her to Paris.

After the marquise had fled, La Chaussée, the servant

MARGUERITE D'AUBRAY, MARQUISE DE BRINVILLIERS.

(*By Lebrun.*)

Drawn from life at the time of her being taken to execution.

whom she used as her tool, fell under suspicion, was arrested, brought to trial, and, after confessing to being the instrument of several murders, was broken alive on the wheel in 1673. The discovery of these terrible crimes attributed to Brinvilliers, and the revelations made in documents which had come into the possession of the authorities amounting to a confession of her numerous murders, caused a great sensation, not only in Paris but throughout the whole of France.

The scene at her trial was intensely dramatic, and even the judges were greatly moved. The marquise herself kept up a bold front and showed the greatest resolution, in spite of the evidence stoutly denying all the charges brought against her. She was confronted with her former lover Briancourt, the tutor, to whom it is said she confided all the secrets of her crimes. The evidence was for the most part unquestioned, and she was found guilty and sentenced on July 16, 1676. It is recorded as follows :—

" The Court has declared and declares the said D'Aubray de Brinvilliers duly attainted and convicted of having procured the poisoning of M. Dreux D'Aubray, her father, and the said Messrs. D'Aubray, Civil Lieutenant and Councillor in the said Court, her two brothers, and attempted the life of the late Teresa D'Aubray, her sister, and by way of reparation has condemned and condemns the said D'Aubray de Brinvilliers to make public apology in front of the principal door of the Church of Paris, whither she will be taken in a cart, with bare feet and a rope round her neck, holding in her hands a lighted torch of two pounds weight, and there on her knees to say and declare that wickedly, and in order to possess their goods, she procured the poisoning of her father and her two brothers, and attempted the life of her deceased sister, of which she repents and asks pardon of God, the King, and the law : this done, taken and conveyed in the same cart to the Place de Grève of this city, to have her head cut off there on a scaffold to be erected for the purpose in the said place ; her body burnt, and the ashes thrown to the winds. She is first to be put to the question, ordinary and extraordinary, in order to obtain a disclosure of her accomplices."

She heard the sentence with courage, and during the time previous to its being carried out was visited by a Jesuit priest named Pirot, who was a doctor of the Sorbonne and a man of

great intelligence. It was his hope to induce her to reveal the names of her accomplices, the compositions of the poisons she used and the antidotes that would nullify their effects. She accepted his ministrations with graceful courtesy and is said to have convinced him of her penitence and made a full confession of the crimes she had committed. According to her account, the only poisonous substances she ever used were arsenic, vitriol and toad venom.

At first she said, "I do not know exactly what they were," but shortly before her death she remarked, "I should like to know the composition of the poisons which I used and which were used at my direction, but all I know about them is that there was toad's venom and that there were some that consisted of rarefied arsenic."

It is quite possible that she may not have known of the composition of some of them, as they were probably originally compounded by Glaser, who was a skilled chemist and well versed in the science of his time.

The only antidote she stated that she knew was milk, and her only accomplices Sainte-Croix and certain lackeys.

On July 16, 1676, when she was taken to the scene of execution, an enormous crowd had assembled. "Never," says Madame de Sévigné, "had any seen such a crowd, or Paris so excited or so interested." The marquise drew herself to her feet in the cart with her eyes flashing and cried out in a loud voice charged with contempt, "You have come to see a fine spectacle."

Such is the tragic story of Marie Madeleine de Brinvilliers. She is described by contemporary writers as with the face that one might expect, "degraded by excesses, and distorted by evil passions, but with features extremely regular, with a rounded face that was full and beautiful and a certain look which seemed to breathe goodness."

A great deal has been written in France about her supposed knowledge of poisons, and her great skill in using them for criminal purposes; in reality, she was but a murderess of the common type, in whom sensuality, cunning and vice were combined.

The execution of the Marquise de Brinvilliers did not, however, put a stop to the extraordinary wave of criminal

poisoning that passed over France towards the end of the seventeenth century. During the reign of the *Grand Monarque*, brilliant and glittering though it was, the vices of avarice and jealousy led many to unscrupulous practices and crime. In this state of society it was little to be wondered at that Paris swarmed with fortune-tellers, astrologers, sorcerers and others of their kind who made enormous sums of money out of their dupes. Many of these combined the sale of poisons with actual pratice, and claimed to be able to accomplish almost any crime, from the removal of an inconvenient husband to anyone who stood in the way to an inheritance.

The papers of one of these Italian adventurers, named Primi Visconti, were discovered and translated a few years ago, and throw some light on the methods of these parasites of society. Visconti, who had obtained entry to the French court by his professed skill in palmistry and chiromancy and had become somewhat popular with the courtiers, relates that it had come to the King's knowledge that the infamous Sainte-Croix had sought to obtain the position of *maître d'hôtel* in the palace of Versailles, and had been recommended to the position by a wealthy and avaricious person named Penaultier, Receiver-General of the Clergy, who was also suspected of being concerned in the recent crimes.

About 1677 the Ministers of the State awoke to the fact that it was time something was done to put a stop to these practices. Colbert and Louvois issued instructions to the police to keep a sharp look-out for cases of poisoning. An official record states that some years before 1677 and up to the end of 1678 the judges and magistrates of the city of Paris and its neighbourhood, as well as the Secretary of State, had noticed that of the number of criminals and malefactors whom they had caused to be arrested for ordinary offences, the greater number were charged by declarations, death-bed depositions or information given to the Government "with complicity in, or knowledge of different poisonings carried out on different persons of all sorts and conditions, who had in consequence died."

The *Chambre de Paisons* or *Chambre Ardente* previously referred to, sat in all 210 times until July 21, 1682, and

during that period dealt with charges against 442 persons, and ordered the arrest of 367; 218 were kept prisoners, 36 were executed, 2 died in prison, 5 were sent to the gallows, and 23 were banished.

In spite of this it is said that the worst criminals escaped, owing to influence that they brought to bear in their favour. "The chief culprits," says Ravaisson, "belonged to the nobility or the law, and almost all of them had amongst the members of the court friends, clients or relatives." The King had set a bad example by allowing some individuals who were compromised to go free. The judges had not the courage to be more severe, and the weight of the condemnations fell almost entirely on the miserable creatures who sold the poisons and not on those who bought and used them.

An example of the class alluded to were two women called La Vigoureux and La Voisin and a priest named Le Sage who were first arrested and then tried for carrying on a trade in poisons. They made themselves out to be practitioners in necromancy, claiming to raise the spirits of the departed for those who wished and to supply love philtres to those who desired them. Their rooms were constantly visited by people of position and others, many probably out of curiosity, as has been the case with fashionable fortune-tellers of a later date. La Voisin, however, kept a list of her clients, and on her arrest, when this was discovered, they were also arrested and brought to private trial before the Chambre. The list contained such names as the two nieces of Cardinal Mazarin, the Duchesse de Bouillon and the Comtesse de Soissons.

At the trial of the Duchess nothing could be proved beyond her statement that she had resorted to Le Sage to consult him as a fortune-teller. He also claimed to be able to show her even the Devil himself. La Reiné, one of the judges of the court, was indiscreet enough to ask the Duchess if this had taken place and if she had ever seen the Devil? The lady quickly replied that she saw him at that very moment, that he was extremely ugly and very hideous, and appeared to her in the guise of her questioner.

The charge brought against the Comtesse de Soissons and the Marshal de Luxembourg was more serious. The three criminals claimed to know the secret of a particularly poison-

ous powder which they prepared, and to which they gave the name of the *poudre de succession*, so called from the real or supposed frequency with which it had been used to hasten or change the succession in the families of the rich. The names of those who obtained possession of it had been reported to the Government. It is said that the King intimated to the countess that if she was guilty she had better escape by flight. Although she declared her innocence, she said she could not endure the scandal of a public trial and fled to Brussels, where she died in 1708.

With respect to the marshal, his explanation of his connection with the infamous trio was that he had consulted them in order to recover some lost papers of value. He had done this through the medium of a man named Bonard; Le Sage swore, however, that the marshal had applied to him to poison a woman who had possession of the papers and refused to give them up. His accomplices testified that they had accordingly poisoned her and disposed of the body into the river at the instigation of the marshal. The marshal was imprisoned and placed in a dungeon six and a half feet long, where he fell sick and remained five weeks before being brought to trial. The trial of the marshal was prolonged fourteen months, when he was finally released without being condemned or acquitted. La Voisin, La Vigoureux, together with Le Sage, the priest, were eventually convicted and burned alive in Paris.

The *Chambre Ardente* came to an end after being criticized as a political tribunal which did little to effect the purpose for which it was designed.

According to later writers, the famous *poudre de succession*, consisted of arsenic, sometimes mixed with vegetable poisons such as aconite, belladonna and opium.

Among the substances believed to be deadly was powdered diamond, for which powdered glass was probably substituted. Another writer states that *poudre de succession* appears to have been composed of sugar of lead. Nail-parings and powdered lobster claws were used for a similar purpose. Vegetable poisons—opium, hemlock, belladonna, euphorbium, and many other poisonous plants—are also mentioned, and one enterprising Frenchwoman, who had been to the

West Indies, appears to have had the idea of importing curare taken from poisoned arrows.

There seems little doubt that in the eighteenth century, when the practice became almost a cult, poison was sometimes secretly administered by means of a clyster, the use of which was so common at the time. Arsenic, corrosive sublimate, cantharides and opium are said to have been given in this way.

Louis XVIII of France is said to have narrowly escaped death by poison in 1804. At that time he was living under the name of the Comte de Lille near Warsaw, and had in his household a servant named Coulon, a French adventurer, who had been a prisoner of war at Portsmouth and arrived in the Polish city in 1803. He declared that he was approached in July, 1804, by two emissaries "charged to poison Louis XVIII, his wife, and also the Duke and Duchess d'Angoulême," who were living with the royal couple. The emissaries offered him four hundred louis d'or if he would place in the soup served to the King and his family some hollow carrots filled with poison. A postchaise would await Coulon to carry him at once to France, where the regicide would be asked no questions so long as his victim was a Bourbon. Coulon accepted the carrots, but denounced the couple. Part of Poland was then subject to Prussia, and the Prussian police appear to have been singularly averse to taking action in the matter, and allowed the two emissaries to escape. This circumstance, coupled with the fact that Napoleon was all-powerful at the period, and the supposition that the man who ordered the Duc d'Enghien to be shot was capable of compassing the death of other Bourbons, gave rise to the suspicion that the plot was really set on foot by Napoleon's police. Louis XVIII requested that Coulon might be arrested and the carrots officially analysed, but the Prussian authorities refused to act.

"Seeing that it was impossible to rely either upon the law or the Prussian police," the narrator continues, "d'Avray went with Dr. Lefèvre, the King's physician, to call upon Dr. Gazatkiewick, one of the most celebrated practitioners of Warsaw. Here, in the presence of a second physician, Dr. Bagenzorve, and of M. Guidal, a local pharmacist, the seals placed by the Archbishop on Coulon's packet were

broken. The three carrots therein contained were opened and found to be filled with a sort of paste formed of three arsenics, yellow, white and red."

A report was drawn up and handed to M. de Tilly, head of the city police, but he declined to take any notice, saying the affair was outside his province.

The question of the various poisons used during this period in France for criminal purposes has been ably discussed by Dr. Lucien Nass, who has had access to the documents relating to the various important trials that took place. He says, that according to police inventories of articles found in the domiciliary visits made by them in the course of their inquiries into these poisoning cases, many substances were employed. If one failed another was tried. The method of administration was varied with considerable ingenuity, and arsenic, opium, cantharides and lead acetate were the substances mostly employed.

CHAPTER XV

THE MYSTERY OF AMY ROBSART'S DEATH

THE mystery attending the death of Amy Robsart, the wife of Robert Dudley, who eventually became Earl of Leicester, is one which, owing to the lack of detailed documentary evidence, is never likely to be entirely solved. So much has been written concerning the troubled life of this unfortunate lady and its sad ending, that a brief outline of her story, which has been gathered from the most reliable sources, is all that is necessary here.

She was born about the year 1532 and was the daughter of Sir John Robsart of Sidestern in Norfolk, whose wife was the widow of one Roger Appleyard.

Where she first met Robert Dudley is not known, but they were married at Sheen (Richmond) on June 4, 1550. The wedding is recorded by Edward VI (who was present at the ceremony) in his journal. Dudley was master of the King's buckhounds and was knighted by him. At the time of her marriage Amy Robsart was probably eighteen, while Dudley is said to have been about the same age.

Of the first ten years of their married life little is known, but on Elizabeth's accession Sir Robert Dudley, who was on terms of close friendship with the young queen, suddenly became a personage of importance and received his title from her. As the special favourite of his sovereign his position at Court speedily became one of envy, to which was added the jealousy of his rivals. It was freely rumoured that but for the fact that he was already married, he stood a good chance of becoming the royal consort.

The close intimacy of Queen Elizabeth and Dudley soon became a public scandal, and during this time nothing is heard of his wife, until the spring of 1560, when it was announced

that she had gone to reside at Cumnor Place, a house situated a few miles from Abingdon. Neglected and slighted by her husband, whom she saw had been weaned from her, the unhappy woman no doubt fell in readily with Dudley's suggestion that she should take up her residence in this lonely country house.

Cumnor Place was a stone-built residence of fair size, and had formerly belonged to Doctor George Owen, who was physician to Henry VIII. On his death he bequeathed the estate to his son William, who had let it to one Anthony Foster, a country squire who appears to have been well known to Dudley.

At the time when Lady Amy Dudley took up her residence at Cumnor, there were living in the house beside Foster and his wife, a Mrs. Odingselle, his sister-in-law, and Mrs. Owen, who, according to Adlard, was the widow of Dr. George Owen, the physician, and original owner of the property.

It is a noteworthy fact that very shortly after Lady Amy's arrival rumours became current that her life was in danger. It was also reported that she was ill, a story which was probably spread abroad with an object.

De Quadra, the Spanish Ambassador to the Court at the time, in an extraordinary letter written from Windsor to King Philip on September 11, 1560, bears evidence to these rumours in the following words: "He [Cecil] ended by saying that Robert [Dudley] was thinking of killing his wife, who was publicly announced to be ill, although she was quite well, and would take every care they did not poison her. The next day the Queen told me as she returned from hunting that Lord Robert's wife was dead, or nearly so, and begged me to say nothing about it."

"Since writing the above," he continues, "I hear the Queen has published the death of Robert's wife and said in Italian, 'She broke her neck.'"

One must assume from this letter, which was written only three days after Lady Amy's death, that she had been aware that an attempt had been made to poison her.

To return to the story. On Sunday, September 8, a fair was being held at Abingdon, and according to the statement of Dudley's own kinsman Thomas Blount, Lady Amy insisted

on her servants, who were much attached to her, going to the fair. Of the tragic events that followed, very little is known. Amy dined alone that day with Mrs. Owen; Foster, his wife and sister-in-law being, it is presumed, in the house. When the servants returned to Cumnor late that night, they found their mistress lying dead at the foot of a short staircase that led from her bedchamber to the ground floor. It was announced the next day that the unfortunate lady had fallen down the stairs and broken her neck.

The news was at once sent to Dudley at Windsor, who made no attempt to go to Cumnor himself, but wrote to his relative Thomas Blount, requesting him to go and investigate the matter and instructing him to see that the coroner made a searching inquiry as to the cause of his wife's death.

He also notified Amy's half-brother, John Appleyard, and asked him to proceed to Cumnor to assist Blount.

All that is known of the inquiry that followed is told in two letters written by Blount to Dudley.

In one of these he suggests that Lady Amy had become insane, "for," he says, "the tales I do heare of her make me to think she had a strange minde." He further informs Dudley that he had met several of the jury who had been chosen for the inquest, and that "they be verie secrete and yet do I heare a whysperinge that they can find no presumpcions of evill."

In a letter written by Dudley to Blount, he mentions having

"received a letter from one Smythe, one that seamethe to be foreman of the jurye. I perseve by his letter that he and the rest hath and do travill verie diligentlie and circumspectlie for the tryall of that matter whiche they have charge of; and for anything I hear, that by any serche or examinacione they can make in the world hitherto, it doth plainlie appeare he saith, a verie mysfortune, which for my own parte, cousin Blount, dothe much satisfie and quiet me."

From this it would appear that the foreman of the jury was in communication with Dudley and even foreshadowed their verdict, which appears to have been that Lady Amy Dudley had met her death by accident.

She was buried with considerable ceremony at the University Church of St. Mary at Oxford on September 22, 1560.

The inquest probably lasted several days, but no report of the proceedings or of the actual verdict of the jury is to be found. There must have been such a report, as it is recorded that a copy was made for and received by John Appleyard, Amy Dudley's half-brother, who on June 4, 1567, wrote to the Council that he had read, and on June 3 had returned the document. In which verdict he not only finds such proofs testified under the oath of fifteen persons how his late sister "*by misfortune* happened of death."

Reports that Dudley was responsible for his wife's death were soon spread abroad and discussed throughout the country, and even in France public feeling was strong against him.

At a meeting of the Privy Council in April, 1566, called to consider the propriety of giving sanction to the marriage between the Queen and Dudley (then Earl of Leicester) it was urged against the proposal that Leicester was "infamed by the deth of his wife."

Anthony Wood, who visited Cumnor a century after the tragedy, records the local tradition that, "those who plotted against Amy Dudley's life took advantage to convey her to another chamber where her bed's head should stand against a door which she did not know of. In the middle of the night came a man with a spitt in his hand, open the privy door and run ye spitt into her head and tumbled her downstairs."

This story is most unlikely, as evidence of foul play would have been at once noticed, and the coroner at the inquest apparently failed to discover any trace of a blow or external injury.

John Aubrey, who next described the event after Wood, states, "she was either stiffled or strangled before being thrown downstairs," which is a more probable theory.

Camden's story of the event is as follows :—

"She was prevailed upon to visit Cumnor-house, the seat of Antony Foster, one of Leicester's creatures. There the unfortunate lady became ill,—the consequence of the infernal practices upon her,—which however produced their effect too slowly to answer the desired end. She was importuned by Foster and his tool Varney, to take medicine for her disorder. They, seeing her sad and heavy, as one that well knew by her other handling, that her death was not far off,

began to persuade her, that her present disease was melancholy, and other humours, and would needs counsel her to take some potion. This she absolutely refusing to do (as suspecting the worst), they sent a messenger for Dr. Bayly, professor of Physic, in Oxford University, and entreated him to persuade her to take some little potion, by his direction. They would fetch the same at Oxford, *meaning to have added something of their own for her comfort*, as the doctor, upon just cause and consideration did suspect, seeing their great importunity, and the small need the lady had of physic, and therefore he peremptorily denied their request."

Before considering the probable cause of Lady Amy Dudley's tragic death according to the present available evidence, several curious and significant events that followed must be mentioned. Antony Foster, who held Cumnor Place on lease at the time, about twelve months after the tragedy, became the proprietor of the estate, and on his death bequeathed it to Dudley, then Earl of Leicester. In 1567 Appleyard, Amy Dudley's half-brother, who was sent by Dudley with Blount to be present at the inquest, confessed that certain of the jury had been bribed. He bore a very indifferent character.

It is also another notable fact that the Privy Council books of this period and the report of the Coroner's inquest and verdict are missing, and have never been discovered.

Dudley's relations with the Queen formed a powerful motive for a man of his unscrupulous character to compass his wife's life. There were strong suspicions against him of having been concerned in the poisoning of several persons who he thought had stood in his path. He carefully refrained from going to Cumnor in person and also from attending the funeral of his wife.

In reviewing the fragmentary story of the events at Cumnor, the tragedy must have occurred between dinner time and midnight, when the servants probably returned from the fair and found the lifeless body of their mistress with her neck broken lying at the foot of the staircase. This staircase is said to have been a short winding stone flight connecting the first floor with the hall. Although her neck was broken, it was remarked, curiously enough, that a hood or cap she wore on her head was not disarranged. This fact is mentioned

in a letter printed in 1584, now in the Bodleian library, entitled, "The Copie of a leter wryten by a master of arte of Cambridge to his friende in London"; in it is stated, "She had the chaunce to fal from a paire of stares and so to break her neck, but yet without hurting of her hoode that stoode upon her heade."

Presumably there were in the house on the fatal Sunday night, Foster and his wife, Mrs. Odingselle, Mrs. Owen and Foster's servants, yet we must assume that if, as alleged, the unfortunate lady did accidentally fall down the staircase, none of these people were aware of it. It was left for her own servants to find her body on their return from Abingdon, probably late at night. It is hardly conceivable that she could have fallen without noise of any kind.

She was evidently aware that attempts had been made to poison her, but we know not whom she specially suspected or how these attempts were made.

Apparently she did not suspect Mrs. Owen, with whom she dined alone on the fatal night, yet Mrs. Owen had been the wife of a physician and doubtless had some knowledge of drugs, and like other ladies of the time doubtless knew also how to prepare them.

Although the report of the inquest is missing and we are ignorant of the proceedings and evidence given, even if this interesting document were discovered it would not prove conclusively how Lady Amy Dudley came by her death.

We do not know if any medical evidence was called at the inquest or if an autopsy was made to discover the cause of death. There was probably no post-mortem, as the broken neck would doubtless be considered sufficient evidence as to the cause of death, and at that period only cases of sudden death without external signs of disease or violence were attributed to poison. There are records that post-mortem examinations were sometimes made in the sixteenth century on the bodies of those who were suspected of having been poisoned, and a description of two such cases is given in a previous chapter.

But although rough clinical tests are said to have been attempted in those cases, no chemical tests were known at that period capable of proving the presence of many poisons.

Supposing opium had been given to Amy Dudley, an autopsy, therefore, would have been of no avail, and in the absence of direct evidence the poisoner would go undetected.

Taking all the circumstances of the case into consideration, in conjunction with the meagre details of the tragedy that have come down to us, it certainly does not appear probable that Lady Amy's death was purely accidental.

Her husband's unscrupulous character was known. She alone stood in the way of the realization of his great ambition to marry the Queen. Elizabeth's words, that "none of his were at the attempt at his wife's home," also add to the strong suspicion that Dudley was the instigator of a plot against his wife's life.

Let us suppose that previous attempts to administer poison had been frustrated by the unfortunate lady's watchfulness, as she was apparently aware of the designs against her life, the opportunity suddenly afforded by the absence of all her personal attendants from the house might have been seized upon to make another and a surer attempt. It would be easy to have introduced some narcotic such as opium or belladonna into her wine at dinner, and after the opiate had taken effect, it would be a still easier matter to precipitate her body down the staircase, thereby causing an injury sufficient to give colour to the statement that she had met her death by accident.

After all, proof in this case is practically impossible, and whether Lady Amy Dudley was murdered or not, is a question that will probably never be conclusively answered.

CHAPTER XVI

A POISON MYSTERY OF THE SEVENTEENTH CENTURY

The Strange Case of Sir Euseby Andrew

A LONG-FORGOTTEN mystery which comes down to us tinged with the romance of past centuries is that surrounding the death of Sir Euseby Andrew. This worthy baronet, whose family seat was at Charwelton in Northamptonshire, was descended from an ancient stock well known in that county. His father, when sheriff of the county, had attended on Mary Queen of Scots at her execution at Fotheringay Castle. The interesting story of the strange circumstances which attended Sir Euseby's death are recorded by Dr. John Cotta, a physician, who practised in Northampton in the early part of the seventeenth century, and who committed it to writing at the time.

It is evident from the account given by Doctor Cotta that the baronet had been ailing for some time and that rumours of foul play were abroad when he was summoned to attend him. We give the narrative in the quaint phraseology of the period as penned by the physician in his manuscript.

"I was sent for by Sir Euseby Andrew," he states, "in his last extremities whereof he died, twice. First, by his apothecary Nicholas Rawlings upon the Sunday before his death. Secondly by his servant Euseby Barbon upon the Tuesday before he died. I came then unto him altogether ignorant of any project matter or mention of Poyson After my coming he tolde me as he was able in weake manner of fainting speach that I was welcome and that he desired to speake with me before he died. After these words I left him a while and went downe to seeke my servant. When I returned, he asked me whether I had ever seene him sicke formerly in that strange manner and torment wherein nowe

he was. My answer was that I had never seene him in that manner. He then tolde me that he had been tormented in that manner ever since he had taken a broth or gellie.

"I demanded who gave him that gellie, whether his Physition. He answered No, but said there was fault therein and further at that time did not proceede his strength sences and speech so farr faylinge that no life was expected a great space.

"Upon certain cordials administered, he, beyond all expectation both of myself and all present obtained unexpected ease and remission of his extremities a large time though not freed from them. Upon this hope by him conceived of his recovery, the next day he abruptly uttered unto me these words, videlicet, Doctor, how am I beholding unto you, I hope now I shall live. If I live I will discover the strangest practise or wonder that was ever heard of in Northamptonshire, but if I die God will revenge it and I hope my brothers will call my wrong into question—

"Hereto I answered nothing that day or the next; he relapsed againe and then uttered these words unto me, videlicet, Good Doctor lett me goe with you into Northampton, I objected, his weakness for such a journey and his unfittness; he said he might be carried in his Coatch with a bed therein. And the journey being objected as too much for him he then desired he might go into Daventry being neare hand, wherein I seemed no forward to satisfie him, he burst out into these speeches, 'I am not safe, I am not secure in my owne house, I would I were a poore sheppard that I might lie in the fieldes.' After the passions uttered (the distance of time I do not remember) the Ladie Andrew his wife came unto him, and had some speeche with him (but what it was I do not now remember) but his reply was 'It is enough for you that I have desired it, but since you brave me in my owne house and in this poore distresse wherein I am, get you from me and come no more at me untill I sende for you. You make her (quoth he) your bedfellow your companion, I wot she is no companion for you; at another time Sir Euseby fallinge into a new passion because Mistress Moyle was not removed out of his house the Lady Andrew intreated me to tell him that Mistress Moyle was gone, which I was loth to say because I knew the contrary, I notwithstanding to quallifie his discontented moans and complaints did tell him, that I did heare that she was gone, which my Ladye confirming likewise unto him, he suddenly and briskly looked up and said 'you lie you know she shall

not goe.' About the same time or before, I do not well remember, it was bruted by some in the house that Sir Euseby did talke idly which he understanding by whom or what means (I know not) he did call me unto him and wishing some that stoode near to stand apart, he uttered these words, videlicet, 'Doctor, they would make you believe that I do talke idly but because you shall know that I do not talke idly I will give you my reasons why I suspect Mistress Moyle.' He then related that Jaquinto had told him of a bason stained with gellie wherinto Mistress Moyle had cast salte, that Jaquinto told him she was a bad woman and meant him no good, and warned Mistress Francis his daughter to take heede that Mistress Moyle came not neare her father's brothes or gellies. He further said, that she was too officious aboute him to rise at 3 or 2 a clock to give him gellie or broth. He said further that after his taking of a gellie he immediately did fall into vomiting and purging 20 times a day, 3 dayes together, and into those torments of his stomache sides and gutes which I did then see.

"He farther saide that Mistress Moyle had given forth that he would not live past Tuesday, which daye (saide he) I had died in my owne feeling and in all others expectation, that were present, if your coming into Charleston that night had not by your Cordialls revived and kept me alive. He saide farther, that Mistress Moyle did talke of burying him the next day. He added farther, that Mistress Moyle when he was in a sounding fitt did take the pillows and bolster from under his head which afterward reviving he did misse and call for as he saide. These things as his reasons of suspecting Mistress Moyle he did deliver unto me, while I replied that I was sorry that his minde was troubled with such things and wondered that a stranger who seemed unto me a sober and modest gentlewoman should intende any such mischief, he thereto answered 'Good Doctor, be not led by them. You are an honest man,' said he, 'they are too subtle for you.' Thus we brake of conference for that time. Some hours before his death he called for his clothes and said he could arise and die in his clothes and not in his bed. In the mean season some gentlemen did offer him a writing or instrument to seal which he then refused, saying, 'I am now distracted and troubled bring it again anone. I doubt the parson will controvert some part of it.' After his clothes were put on he did point and was ledd unto a chair near his bed, where he did sit down and called for the formerly mentioned writing

and viewed it, sett his hand unto it, sealed and delivered it. He then called for his will which he untied and brake the seal and taking a pen begann to rase something therein, but Mr. Thomas Andrews stayed his hand saying, ' Good brother don't alter your will, I hope she will prove a good mother unto her children,' by which Sir Euseby not seeming much moved, another gentleman upon his knees thus spake unto him, ' Good Sir, remember that you have almost been married together these 20 years and you have had many sweet children together and as you met in love so part in love.' Hereunto Sir Euseby answered, ' I am contented,' and threw the pen from him and delivered the will back again.

" Then he required to be laid upon his bed in his clothes and called for the preachers to pray with him, which they did until his strength and speech and senses failed him, and he drew his wind very short and from that shortness of breath did fall and lie gaping and now and then did take a gasp.

" After we nerby now supposed him dead he again revived and feeling for his pocket did draw there out a seal and offered it, saying, ' the boy, the boy.' He was demanded whether he meant his eldest son—he answered ' Yea,' and putting again his hand into his pocket he drew out a key, and added it unto the seal. He then relapsed again a short time unto drawing his wind short and gasping and then reviving again said, ' My brothers, my brothers,' Who being called unto him said ' Norton, Norton, I would have an honest use made thereof and no more but an honest use.' This said, he then relapsed again so long a space that I supposed him passed reviving any more and I went down into the Court. There after I had stayed some space and was called up again unto him. When he did see me he said, ' O Doctor, I cannot die,' ' Do you know the cause.' I answered, ' No.' He said, ' I will tell you. The angels have been about me this hour and will not suffer me to die until I have made known that Mistress Moyle is the cause of my death.' I did answer that I was sorry to hear him so say for that it may now be deemed he died not in charity for that he did not forget and forgive. He hereto replied, I do forgive her, but God commanded the Angels and they would not suffer me to die until I had thus spoken and now I shall die.' Upon these words a Knight standing by said unto one Mr. Harrison a preacher, ' By God you Divines are flatterers you should now tell him that these angels are Devils.' Hereunto I answered I did not take those words fitting but if Mr. Harrison, said I, you will

tell Sir Euseby that those his wordes may be deemed to proceed from a sick brain or unto such purpose you may do very well.

" Then Mr. Harrison said, ' Sir I beseech you remember yourself, you speak such things as may breed much trouble and you know you are going out of the world I pray you take heed what you say.'

" Sir Euseby looking upon him shaking his head and gently moving his hand towards him said, ' This is no time to lie now.' And then did relapse again and never did look up nor speake any more until he died."

That Mistress Moyle was charged with poisoning Sir Euseby Andrew may be surmised from the concluding portion of Doctor Cotta's manuscript, in which he relates his " evidence given in open Court at the Assizes at Northampton three several times upon commande."

He states: " My first reason that bredd suspition was for that Sir Euseby Andrew did not seeme to me to die of that disease whereof he had so long before languished, but of another kinde.

" That he died of another kind is manifest. First, for that the last disease whereof he died was an acute sharpe and swift disease. The first disease whereof he had so long before languished, was a chronicke ling'ring disease into which two kinds Phisitions do divide all diseases.

" That the last disease was an acute disease is manifest, for that as is the manner of an acute disease it was in his motion swift and in his accidents and qualitie sharpe. This was planely seene, for that immediately after the approach of this latter disease Sir Euseby Andrew was driven to keepe his chambre, was unable to stand upon his leggs, to sett up in his bed whereby a general extreame anxietie and distresse of all his body by continual vehement faintings and soundings, by extreme torment of his stomache sides and gutes, he was in a few days compelled to yield up the ghost.

" That the latter disease was of another kind different from the first, is yet farther manifest, namely, for that it had accidents which were not in the first, that is a blackness of the tongue, soreness and rawness of the throate and a frank excoriation in the stomake found after his decease.

" If he died of a new disease that was a new cause and that remaineth to be inquired into, whether poyson yea or noe, which in my opinion may too justly be doubted for three reasons following.

" 1. The first reason is, for that in the stomake of Sir Euseby Andrew after his decease was found an usual effect of a corroding fretting poyson namely an excoriation in the stomake before mentioned without any probable or manifest cause thereof within the body. That there was no manifest or probable cause thereof within the body doth seeme to me. As there was nether staine nor substance of any inbred humour, so of some outward corroding matter there were manye presumptions in court deposed, namely, a bason and porringers stained, the bason staininge gellie in the takinge disliked, distasted after the takinge, within short time cast up againe, and after it following extreme purginge, vomiting, torments of stomake sides and gutts, continuing untill death wherof were many witnesses of note and worth.

" 2. The second reason is, for that the excoriation found in the stomake had so suspitious a proportion with the suspected gellie which was deposed in Court to staine the Bason and porringers and speedily after the taking to cause Sir Euseby Andrew to grow sick, to purge, to vomit, to be extremely tormented in stomake, sides and gutts. The first liquor of the suspected gellie was all cast away and fresh liquor was added unto the same ingredients both which were in Court deposed.

" That Sir Euseby Andrew his tonge was black and his throate sore and raw was partly complained by himself while he lived and partly seen by others, and as I conceive is not denied by any—

" In Sir Euseby Andrew as also seene staines or spotts upon his liver, and in his mouth, but whether without probable cause thereof within the body I referr unto the consideration of the number and weyht of the signes of poyson from without.

" There were many signes of some corrodinge matter or poyson taken from without in or about Sir Euseby Andrew. The signes deposed were these.

" First, a bason and Porringers stained with a gellie.

" Secondly, Sir Euseby Andrew his distate of that gellie as soone as it was in his mouthe.

" Thirdly, his growing extreme sicke immediately after it was swallowed downe.

" Fourthly, after his growing sicke a vehement purging and vomiting, a fainting, and sounding and extreme torments of his stomake sides and gutts, from which accidents in that intense and vehement degree he was formerly free, as was

deposed in Court by a Physition whom he had formerly used and who did see him in his last extremes likewise and as I myselfe do know.

" Thus all signes of poison taken from without concurring, and so many circumstances consenting in one and the selfe same kinde and affirmative. I suppose I have sufficiently made good my opinion.

" Therefor, Sir Euseby Andrew his disease accompanied with all those signes concurring did arise from poyson taken from without and not bredd within—And I take it the office of every honest physition to speake the truth in the behalfe of his distrissed patient espetially by himselfe when dying therto required. This I hope will satisfie all intelligent ingenuous minds.

" JOHN COTTA."

Whether Mistress Moyle was found guilty of the crime or not, the worthy physician does not say. Certainly his evidence goes to prove that a crime had been committed, but by whom, he gives us no indication, and the strange death of Sir Euseby Andrew still remains among the mysteries which have never been solved.

CHAPTER XVII

A MYSTERY OF THE AUSTRIAN COURT IN THE SEVENTEENTH CENTURY

IN the spring of the year 1670, Leopold I, Emperor of Austria, was seized with a mysterious illness which greatly puzzled his physicians. A staunch and fervent Roman Catholic he was completely dominated by the Jesuit party, who dubbed him "Leopold the Great," and received in return for their commendation many tokens of his favour. In spite of this friendship, however, seeing that the house of Austria was tottering, for Leopold had no male descendants, the fathers were engaged in secretly fomenting an insurrection in Hungary which was supported by Louis XIV.

It was darkly hinted by some that the Emperor was being poisoned by the Hungarian malcontents. One day the papal nuncio was in conference with the sick monarch in his cabinet concerning the insurrection which had just broken out, and while they were in consultation a fresh despatch arrived, which contained a long list of the persons implicated. In this list appeared the name of Francis Borri. As the name was read out by the secretary, the nuncio started.

"Borri!" he exclaimed. "Have him arrested at once, your Majesty. He is a most dangerous man and has contrived to escape from the avenging arm of the Holy Office." Within a few hours afterwards, a Captain Scotti, of the Austrian Life Guards, was despatched on a special mission to Goldingen to arrest him.

Giuseppe Francesco Borri was a remarkable man. Born in Milan in 1627, he left that city early in life for Rome, where he studied medicine and alchemy. His scientific studies did not, however, prevent him from taking a deep interest in other subjects, and among these theology claimed a place. His researches led him to doubt the supremacy of the Pope, and

he began to deliver lectures claiming that the mysteries of the faith were derived from the principles of chemistry.

The Jesuits at once obtained an order for his arrest through the Inquisition, and the Pope offered a reward of 35,000 francs to anyone who would deliver him up ; but Borri was on the alert, and fled to Strasburg. His enemies in Rome, balked of their prey, meanwhile had his name publicly exposed on the gallows and his picture was burnt by the hangman. From Strasburg he journeyed to Amsterdam, and there became very popular as a physician, being besieged by patients who offered him large fees for his services. He professed to be an adept in toxicology and was learned in poisons and their antidotes. Leaving Amsterdam, he proceeded to Hamburg, where he made the acquaintance of Queen Christina and acquired a great reputation for his skill in ophthalmic diseases. For a few months he lived at the court of Copenhagen, but desire coming over him to go to a warmer climate he left the north with the object of settling in Stamboul.

On April 10, 1670, he arrived at Goldingen on the Silesian border. But his enemies the Jesuits had not lost sight of him. They played a waiting game, which proved successful in the end, for the landlord of the house in which Borri lodged communicated his guest's identity to the Jesuits at Vienna, and he was arrested as a suspect by Captain Scotti on April 22. Travelling in a carriage surrounded by an escort of cavalry they at once set out for the capital. The captain happened himself to be an Italian and treated his prisoner with every consideration. He told him he was suspected of being concerned in a conspiracy, and that he had the papal nuncio among his opponents. "Then I realize the real cause of my arrest," replied Borri.

Scotti also told him, in conversation, of the Emperor's mysterious illness, which had baffled his physicians and which was now supposed to be due to secret poisoning. Borri expressed the opinion that if this was the case he could readily discover the presence of a poison if one existed. He implored the captain to inform the Emperor that if he really suspected he was being poisoned he could free him from it, and was incapable of taking any revenge for the insult done by arresting him. The captain promised to comply with his request.

On their arrival in Vienna on April 28, 1670, Borri was taken to the Swan Inn and there lodged in a room which was guarded by soldiers.

Weary and tired by his journey he at once threw himself on the bed and fell asleep, but he was aroused during the night by the door being opened. A man entered, wrapped in a cloak and bearing a dark lantern. When he lighted the room he saw it was Captain Scotti.

"Make haste and get ready," said the captain. "The Emperor wishes to speak with you, for your reputation as a physician is known to him. I mentioned your proposal to him and his Majesty trusts you, but was obliged to wait till night as he does not wish this visit to be known."

Borri thanked the captain and in a few minutes they were walking through the dark and silent streets to the palace. When they arrived, Scotti handed his prisoner over to a chamberlain, who at once conducted him to the Imperial antechamber and bade him be seated.

In about a quarter of an hour a gentleman of the bed-chamber came in and made Borri a sign to follow him. They passed through several apartments until they came to a velvet-covered door which the conductor opened, and, drawing back a heavy *portière*, beckoned Borri to enter.

He found himself in the Emperor's cabinet, a gloomy room lighted by a few candles which shed but a dim light. Pictures of a religious character covered the walls, and by the side of a small work-table stood a lofty *prie-Dieu*, over which hung a finely carved crucifix. By the dim light Borri at length discerned a little man seated in an arm-chair near the table, making impatient movements. He wore a green silk dressing-gown and a cap with a shade for his eyes. His feet were wrapped up, his face was livid and his cheeks sunken.

Borri advanced and bowed.

"Are you the Milanese cavalier?" the Emperor asked in a trembling voice.

"At your Majesty's service," replied Borri.

"I am sorry to see you here as a prisoner, but you are not one at present," said the Emperor.

"Had I not been arrested I should not have had the happiness of seeing your Majesty," rejoined the physician.

"I hear much that is satisfactory about your learning, although in another respect you are said to be a dangerous man. Why do you trouble yourself with religious affairs? Leave them to the clergy," said the Emperor, who continued to interrogate him at some length on religious subjects. At last he said, "Now I hear that you devote yourself to medicine. What have you heard about my condition?"

"Nothing beyond the supposition that your Majesty has been poisoned," replied Borri. "But that I may be able to express my views on the subject your Majesty's physician-in-ordinary must bring the symptoms before me, and then I shall be able to speak with certainty," he continued.

A messenger was at once sent for the physician. Meanwhile, Borri noted the Emperor's wasted and grey looks. Then, rising, he took a survey of the room, examining every ornament and object and sniffed suspiciously. The Emperor followed his movements with inquiring eyes.

"Well, Borri," he sighed at length. "What do you think?"

"I think almost certainly," remarked the physician decisively, "that your Majesty has been poisoned."

"Holy Mother, have mercy on me!" cried the Emperor.

"I must, as I said, speak with your physician-in-ordinary," continued Borri, "but I can also promise your Majesty's recovery with equal certainty, for there is still time."

"And how do you come to this conclusion of poison? My friends dine with me out of the same dish. Do you notice anything on my body?"

"Your Majesty, it is not so much your body," replied Borri, "but the atmosphere of your room that is poisoned."

"How can you tell, when I feel nothing of it?"

"Your Majesty is too accustomed to the poisonous exhalation to notice it."

"And where does the exhalation come from?"

Borri rose, and, followed by the wondering eyes of the Emperor, lifted each candelabrum and placed it on the table, before the monarch, and so bringing twelve lighted candles together.

"See the exhalation that rises from the candles," he exclaimed. "Do you not notice the peculiar colour of the flame?"

At this moment the chamberlain entered the room.

"The light is vivid," remarked the Emperor, "but does not seem to me to be extraordinary."

"Do you not see a fine white mist arising which is not found in ordinary candles?" continued Borri.

The Emperor appealed to the chamberlain and asked if he noticed the mist, and he replied that he did. Just then the Emperor's physician-in-ordinary entered the cabinet.

"You have come at the right moment," exclaimed the Emperor. This cavalier asserts that the air of my room is poisoned. Have you the diagnosis with you?"

"It is here, your Majesty, where it has been kept since your illness," replied the physician.

The report was handed to Borri, who quickly glanced at it and nodded his head.

"Do you perceive the curious smell in the room and the fine, quickly ascending vapour?" asked Borri, as he pointed out the candles to the doctor. "Look also at the crust which the vapour has deposited on the ceiling."

"I see it all and bow to your sharpness, cavalier," said the physician.

"Does your Majesty burn these candles everywhere?" Borri asked. "It would be interesting to know if they are used in the Empress's apartments?"

The chamberlain at once went and brought two lighted candles from the Empress's chamber, and placed them on the table near the suspected ones. The former burned clear and quietly, while the latter burned with a ruddy flame, emitting a thin vapour while repeated sparks with a crackling noise flashed from the wick.

"There is the cause of your sickness," exclaimed Borri, as he laid his hand on the Emperor's candelabra. "Shall I now prove to your Majesty that these are impregnated with a subtle poison?"

"At once," replied the Emperor.

Borri immediately closed the door of the apartment and extinguished the suspected candles. With the physician's assistance he then commenced to remove all the wax from the wick. Meanwhile the chamberlain was summoned and commanded to bring all the candles he had into the Emperor's

cabinet. The entire stock, amounting to thirty-five pounds, was brought from a cupboard in the ante-room where they had been stored and laid before Borri.

On examining them he called the Emperor's attention to the peculiar fact that each candle was specially marked with a gold fillet round the top as if to prevent any mistake. Further questioning revealed the fact that no other candles but these had been used in the Emperor's apartments since Candlemas. Borri next shredded the candle wick and calling for a small dish of meat carefully mixed the candle wick with it. A turnspit dog was then sent for, and was shut up in the cupboard with the dish of meat.

Meanwhile the Emperor was removed to another apartment, and Borri and the physician proceeded to the palace pharmacy to prepare an antidote for him. Here Borri tested the suspected candle-wick and found, as he thought, it was impregnated with arsenic. He had left instructions that he was to be called as soon as the dog got restless, but the animal was found to be dead by the time he returned to the Emperor's cabinet.

The antidote prepared by Borri soon produced a beneficial effect on the Emperor, and his health improved so rapidly that within three weeks he was able to go out again.

An interesting record of Borri's examination of the poisoned articles shows his remarkable knowledge of chemistry. Of the whole of the suspected candles brought to him he kept back two as evidence and used the remainder in his analysis. The weight of the candles was twenty-four pounds, and the impregnated wicks three and a half pounds, from which Borri concluded that nearly two and three-quarters pounds of arsenic had been employed.

Immediately Borri reported the result of his investigation to the Emperor he gave orders that the person who supplied the candles should be arrested at once.

It was found that they had been supplied by the procurator of the Jesuits, who was, however, no longer in Vienna and was not to be found. Being warned in time, this astute individual had made good his escape.

The solution of the mystery as to how the candles became impregnated with arsenic subsequently transpired. It was

discovered that the pater-procurator of the Jesuits, accompanied by a humble member of the order, had personally delivered the prepared candles, which were packed in two boxes, at the palace on March 2, 1670, at dark, with instructions that they were to be delivered to the chamberlain and were to be treated with the greatest care.

"Your reverence," said the steward who received them, "will greatly oblige by telling me what the boxes contain, so that I may take due care of them, until I hand them over to the chamberlain on duty?"

"Learn, my friend," replied the procurator, "that the boxes contain a number of especially consecrated wax candles for use in the Imperial apartments. His Majesty, you know, receives everything he requires through the hands of us who have blessed it for his service. Inform the servants who have charge of the Imperial apartments that his Majesty gave his reverend confessor Father Muller to understand that he wished, in addition to other consecrated objects, to have such candles burnt in his rooms. They must be henceforth taken from this store."

The same evening the candles *consecrated* by the Jesuit fathers were lighted in the Imperial cabinet.

For a short time the Emperor appears to have shown some gratitude to the physician who had been instrumental in saving his life, and Borri dined at the Imperial table, but the hatred of the clerical party increased when they saw him thus favoured.

On June 14, 1670, the Emperor, now quite restored to health, summoned Borri to his cabinet and thanked him fervently for his services, but, he added, he was sorry in the matter of religion Borri had gone astray and that it was necessary to cure him of his errors. The Pope would appoint a Commission. "I have obtained a guarantee from the papal nuncio," continued the Emperor, "that in no case shall anything be done against your body or your life. So long as you live, two hundred ducats a year shall be paid to you by myself or my heirs as a memorial of what you have done for me."

On the following day Borri left under an escort for Rome. On his arrival he was arrested and imprisoned in the castle

of St. Angelo. Owing to the good offices of the French Maréchal D'Estrées, whom he attended during a serious illness, he was allowed a certain amount of liberty and could go in and out of the castle. He was also allowed to fit up a small laboratory, where he was able to carry on his work in chemistry. The Jesuit general Pater Gonzalez is said to have had several interviews with him while in St. Angelo, with the object of getting him to reveal the secret of his poison antidote, but Borri always declined to reveal it, and he eventually died in the castle of St. Angelo in the year 1695.

Borri has been variously described by his biographers as an alchemist, physician, quack or charlatan who amassed money by duping the wealthy patients who consulted him, but, judging from the works he wrote, he was probably no worse than many others who practised medicine in his day, and certainly was before his time in his knowledge of chemistry.

Although a fanatic on religious subjects, he appears to have had considerably more knowledge of disease than many of his contemporaries, and the stories of his successful treatment in many cases are probably true. The story here related of his discovery of the causes of the Emperor Leopold's mysterious illness is related by Wraxall and vouched for by Michiel and is believed to be founded on fact.

CHAPTER XVIII

POISON PLOTS

DURING the Middle Ages a strange dread of wholesale poisoning spread throughout Europe and caused numerous panics. Some of these rumours may probably have been circulated by unscrupulous traders who had articles to sell, or some business interests to forward, but of this disturbing fear authentic record still exists that it affected whole communities.

England was probably freer from crimes of this kind than almost any other country, but in 1530 a case occurred which aroused great public indignation. Fisher, Bishop of Rochester, was accustomed to feed a number of poor people daily from his table, and one day a large number of his guests, together with some of the officers of the household, were taken ill and died. After examination of the food had been made it was declared that the yeast used in the bread had been poisoned. Parliament took up the case and the bishop's cook, one Roose, was found guilty. He was tried and sentenced to be boiled alive as a terrible example to others. This seems to have been a penalty for poisoners during the Middle Ages, a fact which doubtless shows the great abhorrence in which crimes of this kind were held.

During the case of Sir Thomas Overbury, at which Lord Bacon performed the duties of Attorney-General, he emphasized the enormity of the offence of poisoning, although he maintained that poisoning was not a crime to which English people were predisposed. "It is a crime," he stated, "the more to be dreaded because it is so easily committed and so hard to be prevented and discovered."

As a result of the Rochester case a law was passed about 1531 making murder by poison high treason, the punishment

being death by boiling. The wording of the act which recorded the story of the crime is worth recapitulating at length.

22 Henry VIII, c. 9. The Kynges royall majistie callyng to hys moste blessed remembraunce that the makyng of good and holsome laws and due execution of the same agaynste the offendours thereof is the only cause that good obedyence and order hath ben preserved in this Realme, and his Highnes havyng moste tender zeale to the same emonge other thynges consyderyng that mannes lyfe above all thynges is chyefly to be favoured, and voluntary murders moste highly to be detested and abhorred, and specyally of all kyndes of murders, poysonynge, which in this Realme hytherto our Lord be thanked hath ben moste rare and seldome comytted or practysed ; and now in the tyme of this presente parliamente, that is to saye, in the xviij daye of Februarye in the xxijd yere of his moste victorious reygn, one Richard Roose late of Rouchester in the Countie of Kente, Coke, otherwyse called Richard Coke of his moste wyked and damnable dysposicyon dyd caste a certeyne venym or poyson into a vessel replenysshed with yeste or barme standyng in the Kechyn of the Reverende Father in God John Bysshopp of Rochester at his place in Lamehyth Marsshe wythe which yeste or Barme and other thynges convenyent, porrage or gruell was forthwyth made for his famylye there beyng wherby not only the nombre of xvij persons of his said famylie which dyd eate of that porrage were mortally enfeebled and poysoned and one of them, that is to say, Bennett Curwen gentylman thereof ys decessed, but also certeyne pore people which resorted to the sayde Bysshops place and were there charytably fedde wyth the remayne of the sayde porrage and other vytayles, were in lyke wise infected, and one pore Woman of them that is to saye Alyce Tryppytt wydowe is also thereof nowe deceassed : our sayde sovereign Lorde the Kynge of hys blessed disposicion inwardly abhorrying all such abhomynable offences, because that in manner no person can lyve in suertye out of daunger of death by that meane, yf practyse thereof shulde not be exchued, hath ordeyned and enacted by auctorytie of thys presente parlyament that the sayd poysonyng be ajuged and demed as high treason, And that the sayde Richarde for the sayde murder and poysonynge of the sayde two persones as is aforesayde by auctoritye of thys presente parlyament, shall stande and be attaynted of high treason : and by cause that detestable offence nowe newly practysed

and comytted requyreth condigne punysshmente for the same; It is ordayned and enacted by auctoritie of this presente parliamente that the said Richard Roose shal be therfore boyled to deathe withoute havynge any advauntage of his clargie."

Under this statute, according to Lord Coke, in his third institute, Margaret Davy, a young woman, was attainted of high treason, for poisoning her mistress, and some others were boiled to death in Smithfield, the 17th of March, the same year, 1524. But this act, continues his lordship, was too severe to live long, and was therefore repealed by 1 Ed. VI, c. 12, and 1 Mar., c. 1. It is thought probable that the proverbial expressions, to "keep out of hot water" and to "get into hot water," may have had their origin in the punishment attached to this crime by the law of 22 Henry VIII.

June 6 is still kept as a public holiday in Malta. Upon that day, over two hundred years ago, while the island was still possessed by the Knights of St. John, a Jew waited on the Grand Master and revealed to him a plot that had been planned for exterminating the whole population at one stroke. The man kept a coffee-house frequented by Turkish slaves, and, understanding their language, the conversation of his customers had aroused his suspicions. The Grand Master, believing the truth of the man's statement, took immediate action. The slaves were at once seized, and, put to torture, they confessed a design of poisoning all the wells and fountains on the island, and, to make the result surer, each of the conspirators was to assassinate a Christian. One hundred and twenty-five were found guilty; some were burned, some broken on the wheel, others were ordered to have their arms and legs attached to two galleys, which, being rowed apart, thus dismembered them. Whether these fearful punishments were carried out it is impossible to say, but the fact remains that the people of Malta still commemorate their escape from poisoning on the sixth of June.

Wholesale poisoning appears to have been frequent in Eastern countries, especially in India and Persia. The wells or other water sources were usually chosen as the media for disseminating the poison, and in this way whole villages have often been destroyed by some miscreant.

An extraordinary poison plot was discovered in Lima towards the close of the eighteenth century. During the insurrection of 1781 a rich cacique, who professed loyalty, went into a chemist's shop and asked for two hundred pounds of corrosive sublimate. He was willing to pay any price for it. The chemist had nothing like that amount in stock, but, not wishing to send away so good a customer, substituted two hundred pounds of alum. On the following day all the water in the town was found to be impregnated with alum, and on examination being made, the fence round the reservoir was found to have been broken down, the banks strewn with alum and the water rendered undrinkable.

Although the use of poison for taking life was, according to Bacon, abhorrent to the English character, in some of the Latin countries the feeling was just the opposite, as evidenced by the following story :—

The Duc de Guise in his memoirs relates, in a most matter-of-fact way, how he requested the captain of his guard to poniard a troublesome demagogue at Naples. The captain was shocked. He would poison anyone at his grace's command with pleasure, but the dagger was a vulgar instrument. So the Duke bought some strong poison, the composition of which he describes at length, and it was duly administered. But Gennaro, the intended victim, had just eaten cabbage dressed in oil, which is said to have acted as an antidote, and so he escaped the effects of the dose.

In the early part of 1917 an extraordinary plot to murder two of his Majesty's Ministers of State was brought to light, which suggests some of the subtle methods employed in the Middle Ages. Three women named Alice Wheeldon, Hetty Wheeldon and Winnie Mason—mother and daughters—and a man named Alfred George Mason, husband of the latter, were charged with conspiring to kill the then Prime Minister, Mr. Lloyd George, and Mr. Arthur Henderson, his colleague on the War Council, by means of strychnine or curare.

The plot was discovered by two secret agents of the Government who were employed for the purpose of obtaining information of the schemes of persons desirous of evading military service or otherwise conspiring against the country, and who had been directed to keep a watch upon this particular family.

They obtained an introduction to the Wheeldons, who lived in Derby, by representing themselves as sympathizers and so won their confidence. They succeeded so well in ingratiating themselves with the family that not only was the plot revealed to them but they were entrusted by Mrs. Wheeldon with the task of actually carrying out the deed.

The suspicions of the two men became aroused when they found that a letter had been sent to Mason with the object of procuring some poisons. The woman had previously shown one of the agents a stuffed skin of a snake shaped in the form of a bracelet, stating that it was poisonous, and remarked that she wished she had a hundred of them. The Wheeldons always showed the greatest animosity to the Prime Minister and Mr. Henderson, expressing the wish that they hoped they would soon be dead. Mrs. Wheeldon also told him that the Suffragettes had spent £300 in trying to poison Lloyd George, the plot being to get into an hotel where he was staying and drive a nail which had been dipped in poison through his boot; this, however, was frustrated by his going to France. She also declared her intention of killing another Minister by inserting a poisoned needle into his skull, and other schemes of an extraordinary character were discussed.

Before handing over the poison Mrs. Wheeldon was stated to have said to one of the agents, "You know what you are doing! You will rid the world of a bloody murderer and be a saviour of the country." Asked how the poison was used, she replied: "It is a crystal, and you drop two drops of water on it, dip your article in, and when the water evaporates it leaves the poison." As the men were about to leave, Mrs. Wheeldon shook hands with them, and said that when she handed the poison over to them she washed her hands of it, and would deny on her word of honour that she ever gave it to them. She assured them that the phial contained enough to kill five hundred people. Walton Heath had been selected as being the most likely spot to offer a suitable opportunity, an air-gun being used as a medium.

The agents at once informed their superior officer, who had the prisoners arrested and the house searched. Among the objects found was a small stuffed snake skin which was

found to contain four glass phials embedded in cottonwool. The accused were charged at Derby on Feburary 4, 1917, and they were tried at the Old Bailey in London on March 7, a month later.

The accused were described by the Attorney-General as a very dangerous and desperate type of people, who were habitually hostile to this country. They were shelterers of refugees from the army and persons who did their best to injure Great Britain in the war then proceeding. Mrs. Wheeldon's son William was himself a conscientious objector.

At the trial a two-ounce tin tobacco box was produced containing four phials sealed. Instructions were enclosed which had been copied by both the agents and were as follows :—

" Powder in tube ' A ' is sufficient for two or even three doses to be given by the mouth or in solution.

" Powder ' C ' to be injected either in solution or by a dart, which will penetrate into the body and stop for a while. Rusted in solution or fired from an air-gun, or a rusty needle if driven well in with powder will do, but don't advise unless in urgent dilemma.

" Solution ' B '—either by mouth or injection.

" Solution ' D '—injection only.

" All are certain.

" All four will probably leave a trace, but if the bloke wanted dies suspect, it will be a job to prove it so long as you have a chance to get at the dog, dead in twenty seconds. Powder ' A ' on meal or bread is O.K. If you care for microbe can supply needle thirty-six hours in strong solution and allow to dry in air, dip again for ten seconds and allow again to dry. Cover with ' C ' powder."

Upon analysis the phials were found to contain :—

" A," 7½ grammes strychnine hydrochloride in crystals.

" B," 1½ drachms strychnine hydrochloride in solution.

" C," curare in powder.

" D," 1 drachm of curare in solution.

The box containing the poison was sent to Mrs. Wheeldon by her son-in-law, Alfred Mason, who was a lecturer on pharmacy at Southampton University College and who was said to have made a special study of curare. Only a few

weeks before the preceding Christmas he had showed a student in the college a specimen of it, and described its properties. The tobacco box containing the phials and instructions are said to have been despatched by him from Southampton to Derby at the request of Mrs. Wheeldon.

Mrs. Wheeldon volunteered to give evidence, in which she acknowledged she had been active in helping men to escape from their military duties ever since conscription had been introduced. There was no form of help that she could give them that she had withheld. Her own son was a conscientious objector. She was quite prepared in the circumstances to violate what she knew to be the law and had no regard to consequences. She expressed her bitter hatred of Mr. Lloyd George and was ready to do him a mischief.

At the examination of Alfred Mason, he said he had devoted some time to the study of criminology in relation to poison, but *he did not know that strychnine was used for poisoning*. If poison was to have been used for a human being he would have definitely stated in his instructions that it should be mixed with food. He said he had had experience in destroying two thousand dogs, and that when his mother-in-law had written she had said she wanted some poison for a dog, and that it was a dangerous dog, and the impression left on his mind was that it was difficult to get it. He treated the allusion to the microbe as a joke.

Counsel on behalf of the prisoners denied the charges as a vindictive prosecution of the worst of its kind that had ever taken place in England. He submitted the curious suggestion that the proper trial of this case would be by ordeal, on which the judge remarked, "I am afraid that it has been abolished." Counsel said he submitted it to the jury. The judge asked him if he proposed that the prisoners should walk over hot ploughshares or something of that kind, to which counsel replied: "I do, in order to prove their innocence." He threw ridicule on the idea that Mr. Lloyd George could have been killed by poisoned darts or arrows.

Mr. Justice Low, in summing up, said that of all forms of murder, poisoning was the most dastardly and the most dangerous, and conspiracy to murder by poisoning was the worst of all. It was almost incredible that these prisoners

had by their own admission behaved as these people had done. The jury having found the prisoners guilty, the elder woman, Mrs. Wheeldon, was sentenced to ten years' penal servitude, the man Mason to seven years and his wife to five years; the girl Harriet Wheeldon was found not guilty and discharged.

In December, 1909, a sensation was caused throughout Austria owing to the arrest of a young officer named Lieutenant Hofrichter of Linz, who was charged with being concerned in a plot to poison a captain of the Imperial General Staff and other highly-placed Imperial officers by sending them poisoned samples of a new patent medicine.

The alleged motive was said to be a desire to clear a path for promotion by the removal of officers of higher rank. Suspicion was first directed towards him by the statement of a brother officer at Linz where he was stationed, who mentioned that he had received from the lieutenant a box exactly similar to those in which the fatal powder had been sent.

About a week before this, a Captain Mader, together with several officers of the General Staff, had received by post a sample of a supposed patent medicine, and on taking some of it he died shortly afterwards. It was found that the medicine contained a large proportion of potassium cyanide.

On suspicion falling on Hofrichter, his quarters were searched and a copying apparatus which apparently had been used for the circulars accompanying the poisoned medicine was found, and he was also identified as the purchaser of capsules, boxes and envelopes similar to those which had been sent to the officers. Hofrichter was brought to Vienna for trial by the military tribunal, from which the public were excluded.

The first hearing of the case lasted seven hours, and in the course of the investigation it was stated that four officers had fallen victims to the effects of poison, the first being Captain Mader. In consequence of the order of the military court, the dwellings of eighty officers were searched in Vienna and the provinces and a series of extraordinary tragedies followed. One of the officers who was engaged at the War Office, felt the indignity to such an extent that he shot himself immediately afterwards. Another victim was a brother-in-law of the accused, who after devoting himself to collecting

evidence and examining possible witnesses, hoping to prove the innocence of Hofrichter, died suddenly, the cause being said to have been hastened by his anxiety and excitement over the case. A Lieutenant Schmidt, who had been summoned to the military court in Vienna, also committed suicide.

The tribunal then proceeded to inquire into Hofrichter's previous career, which brought to light the fact that, some years before, he was engaged to be married to the daughter of a pastor in Bohemia, but the engagement was broken off after he entered the Vienna Military Academy. The girl, in despair, is stated to have poisoned herself with potassium cyanide, and a letter from Hofrichter which arrived after her death was buried unopened with her.

It was rumoured that Hofrichter had sent the girl the poison. The tribunal decided to have the body exhumed. This was carried out, and the unopened letter that had been sent five years previously was discovered. The remains of her body were subjected to analysis, but no trace of poison was discovered.

Meanwhile, the case was postponed for further investigation. This finally revealed the fact that Hofrichter had been leading a double life for a considerable time, and had done so with extraordinary cunning. In the army he had been generally liked and esteemed as a hard worker and a good officer, while under the name of Dr. Haller he carried on a criminal career.

Letters to his wife which were intercepted from the prison, revealed that he intended to commit suicide, and in one of these he asked her to conceal various poisons including atropine and hyoscyamine in a bunch of flowers, which he had asked for to lay on an altar in his cell. At his house in Linz a considerable quantity of poisons and drugs were discovered.

The long delays between the meetings of the military tribunal were very trying to the accused man. For months he had faced the ordeal of a severe cross-examination. He feigned insanity with great ability, and the methods of the police inclined the public in his favour. At length, after a trial lasting for four months, his defence broke down, and he confessed. He was found guilty and sentenced to death by hanging.

During the year 1921 several attempts were made on the lives of well-known people, which appear to have had an influence on weak-minded persons or those on the border line of insanity. Such cases are not infrequent in the history of criminal poisoning, where attempts have been made to take life without any apparent motive.

Early that year it was reported that the Vice-Chancellor of Oxford had received a box of chocolate creams by post, and being suspicious at the receipt of such an anonymous gift he submitted them to one of his colleagues, a professor of science. This gave rise to the rumours that they contained something of a deleterious nature, such as powdered glass, but the result of an analysis showed that the sweets were innocuous. An undergraduate was reported to have confessed, and the presumed plot against the Vice-Chancellor was declared to be a hoax.

In November, 1922, a sensation was caused in London by an attempt to poison the Chief Commissioner of the Metropolitan Police at Scotland Yard. On November 9 it was reported in the newspapers that the Chief Commissioner had been seized with an apparent heart attack in his office at Scotland Yard, which came on while he was dressing before proceeding to the Lord Mayor's banquet. It was not till nine o'clock that night that the doctors summoned to attend him knew definitely that it was a case of poisoning by arsenic.

It appeared that on November 3, six days previously, a package addressed to the Assistant Commissioner, New Scotland Yard, Westminster, had been delivered by parcel post. On being opened it was found to contain four chocolate éclairs, wrapped in grease-proof paper. Enclosed with the éclairs was a small white card three inches long by one and a half wide, bearing upon it the following: "A good lunch and a hearty appetite.—Molly." The box had been posted in the Balham district. The éclairs were sent to an analyst for further investigation, but before the result had been received a second parcel arrived on November 9, addressed to Brigadier-General Horwood, New Scotland Yard, Westminster, S.W., and was opened by the Chief Commissioner himself. The box is described as being of cardboard, $7\frac{1}{2}$ by $1\frac{3}{4}$ inches, and

was wrapped in a piece of stiff white paper addressed in block letters and contained whipped cream walnuts. The box was tied with string and was also posted in the Balham district about 4 p.m., November 8.

The morning that the box arrived Sir William had received a letter from a relative who said that she was sending him a box of chocolates for his birthday, and he accordingly opened the box unsuspectingly. He took one of the chocolates and offered them to his secretary who was in the room. She, however, only bit off a small piece of the outer covering of hers, and remarking that it tasted bitter, threw it away and told the Commissioner. He, still believing the package to have come from his friend, suspected nothing, and though he noticed it burned his throat a little, ate more later in the day. While dressing for dinner that evening the Commissioner was seized with severe pain and showed symptoms of having swallowed an irritant poison, and was removed to St. Thomas's Hospital next day.

On the chocolates being carefully examined it was found that there was a small square mark at the bottom of each as if a portion of the chocolate coating had been removed, a poison mixed with the cream inside and the square of chocolate afterwards replaced. On investigation it was found that the poison employed was undoubtedly arsenic, which was plainly to be seen and took the form of dark greenish-tinted matter.

On November 10 another box was received at Scotland Yard. This was a small cardboard box $2\frac{1}{4}$ by $1\frac{3}{4}$ inches by $\frac{3}{4}$ of an inch, greyish tint with plain card pasted on lid, wrapped in light brown tissue paper, addressed in block letters to The Commissioner of the Police, New Scotland Yard, Westminster. The box contained two small tablets of Bournville chocolate wrapped in white paper. The box was sealed with black sealing-wax, and was posted in the Balham district about 3 p.m., on November 9.

The Chief Commissioner, though for some days in a very critical condition, ended in making a complete recovery.

Only a few weeks afterwards a small cardboard box was received at the Home Office addressed to "The Secretary for Home Affairs, Whitehall, S.W." It was taken to the

registry and opened, and was found to contain cream fondants. The parcel was obviously sent by the same person who sent the poisoned chocolates to the Commissioner of Police. The sweets had apparently been tampered with and were sent for analysis, but no arsenic was found in them. The writing on the address was the same in each case and the box had been posted in the same district of Balham.

Previously to this the police authorities had issued a warning to well-known people, putting them on their guard against similar attempts.

Early in February, 1923, a man living at Balham was arrested by the police at his residence, and was charged with attempting to murder the Chief Commissioner and the two Assistant Commissioners of Police. He made the following statement: "I sent the Commissioner chocolates. I sent them for analytical purposes. I have had no real rest since then; I would not harm him for anything."

In the house where he lived a quantity of weed-killer was found coloured in similar manner to that found in the chocolates.

The analyst to the Home Office, who examined the chocolate éclairs sent to the Commissioner, found that they each contained arsenic, the amount estimated in one being $3\frac{1}{4}$ grains. The three whipped cream walnut chocolates which were addressed to the Assistant Commissioners also contained a considerable quantity of arsenic, the amount in one of them which was tested being six grains.

He also examined two Bournville chocolates which had been drilled with holes and filled with arsenic. The quantity of arsenic in one of these was $\frac{1}{5}$ of a grain. In two Dairy Milk chocolates he examined, similar holes had been drilled, which had been filled up with the same kind of arsenic as that used in the weed-killer and was in the form of a blue powder which was strongly alkaline.

The prisoner was committed for trial, was found to be insane, and ordered to be detained during the King's pleasure.

CHAPTER XIX

CURIOUS METHODS EMPLOYED BY SECRET POISONERS

OF the various methods employed by criminal poisoners, administration through the medium of food or drink has been more common than any other. The poisoned cake or wine recurs with monotonous frequency in the history of poisoning from the earliest times down to the present. Women especially seem to have had a predilection for this method of administering a lethal dose, a fact probably due to their control and direction of domestic matters, which renders the introduction of a poisonous substance into the food or drink an easy matter.

In early times some fell victims to their own evil designs, as instanced in the case of Rosamond, the wife of Alboin, King of Lombardy, in A.D. 573. It is stated that, wishing to rid herself of her husband, she gave him a cup of poisoned wine when he was coming from his bath. The king drank part, but suspecting its nature from the strange effect it produced, wisely insisted that she should drink the remainder, with the result that both died shortly afterwards.

Reginald Scot, who wrote *The Discovery of Witchcraft* in 1584, quaintly states his belief that "women were the first inventors and the greatest practisers of poysoning and more materially addicted and given thereunto than men."

Throughout the history of criminal poisoning there has always been a high percentage of women implicated and numerous cases could be cited of female lunatics with whom the use of poison for criminal purposes amounted to an obsession. With these types, not infrequently met with, there is no suggestion of a motive, the object being apparently to destroy life without any sane reason.

Women of this kind have lived in various periods from

the time of Locusta to de Brinvilliers. There was also Van der Linden, a Dutch woman who poisoned one hundred and two people, and Hélène Jegado, who apparently regarded poisoning as a pastime and whose victims were estimated to number twenty-six.

Some poisoners, not content with introducing the substance into wine or other drink, essayed to improve on this method by preparing a goblet or cup in such a way that it would impregnate any liquid that was placed in it. There is record of one François Belot, a Frenchman, who made a speciality of this method, and, it is said, derived a considerable income therefrom; but he fitly ended his days by being broken on the wheel on June 10, 1679.

According to a contemporary writer, Belot's special method consisted in cramming a toad with arsenic, placing it in a silver goblet, and after pricking its head, crushing it in the vessel. Whilst this operation was being performed he recited certain charms. According to his own account, which is still on record, of treating a cup with a toad in this way, "I know a secret," he says, "such that, in doctoring a cup with a toad, and what I put into it, if fifty persons chanced to drink from it afterwards, even if it were washed and rinsed, they would all be done for, and the cup could only be purified by throwing it into a hot fire. After having thus poisoned the cup, I should not try it upon a human being, but upon a dog, and I should entrust the cup to nobody." Belot's statements were evidently believed in his time, and he enjoyed a considerable reputation.

Another individual named Blessis flourished about the same period, and who, claiming to practise sorcery and magic, went so far as to declare to the world that he had discovered a method of manipulating mirrors in such a way that whoever looked into them would meet his death.

According to tradition, boots, gloves and other articles of wearing apparel have been utilized by poisoners for carrying out their evil plans, and although many of these tales are purely legendary, it is quite possible that others have some substratum of truth. Tissot states that John, King of Castille, owed his death to wearing a pair of boots which were supposed to have been impregnated with poison by a Turk. Henry VI is said to have succumbed through

wearing poisoned gloves, and Louis XIV and Pope Clement VII through the fumes of a poisoned candle.

The stories of the poisoned shirts which, if contemporary records are to be believed, were not infrequently employed by poisoners in the seventeenth century, are within the bounds of possibility. Apparently corrosive sublimate, arsenic and cantharides were employed for this purpose. The shirt is said to have been prepared by soaking it in a strong solution of one of these poisons, the idea being to produce a violent dermatitis with ulceration, which would force the victim to take to his bed. The physician would then be sent for, and would probably diagnose the case as due to syphilis, and prescribe mercury, with the effect of killing the patient in the end.

Such a case is recorded by Dr. Lucian Nass, who relates the story of Madame de Poulaillon, the wife of a wealthy man who was a good deal her senior. Desirous of ridding herself of her husband, she sought the counsel of one Marie Bosse, who told Madame that she should try the method of the poisoned shirt, which she herself would prepare. She then took one of her husband's shirts, together with a piece of arsenic " as big as an egg," to La Bosse. She first washed it and then soaked the tail in a strong solution of arsenic, so that it only looked " a little rusty," as if it had been ill-washed, and was stiffer than usual. La Bosse told her that only the lower part of the shirt had been thus prepared, and the effect would be to produce violent inflammation and intense pain.

Madame de Poulaillon is said to have given La Bosse a sum of money, equal to £800 at the present day, for her services. The husband was, however, warned of the evil intended to him and had his wife arrested. The lady is said to have so fascinated her judges that a contemporary writer states " they were touched by her wit and by her grace and by the tones in which she spoke of her misfortunes and her crime, and though she confessed her guilt, and pronounced herself worthy of death, she was acquitted with applause."

A few years ago, Dr. Nass, with a view to ascertaining the truth of the assertions connected with the poisoned shirt, made some interesting experiments on a guinea-pig. He carefully shaved a portion of the left lumbar region and

gently rubbed the skin with a paste containing arsenic in the proportion of one in ten. He repeated the operation several times during the day. Shortly afterwards the animal became prostrate, the eyes became dull, it assumed a cholera-like aspect and in forty-eight hours died. The skin on which the paste had been applied remained unchanged and unbroken, and showed no sign of ulceration. On examining the internal organs after death, fatty degeneration of the viscera was found and several marked symptoms of arsenical poisoning. This experiment does not, of course, prove the fact that a shirt impregnated with arsenic worn in direct contact with the skin would prove fatal, but it shows that arsenic may be introduced into the body simply by gentle friction on an unbroken skin, and that the effect of the poisoned shirt was possible.

The Duke of Savoy is said to have been one of the last victims of this method, and it is stated that when a shirt could not be procured a slipper was used, although it did not prove so effective. Apparently the primary object in this method was not to kill but to prostrate the patient in bed where he could be despatched at leisure under pretence of treatment.

Similar to the method of treating the shirt there is a legendary story in India of the Queen of Ganore, who is said to have killed Rajah Bukht by impregnating his marriage robes with poison. Chevers, who relates the story,[1] affirms that this form of poisoning is possible. "Anyone," he writes, "who has noticed how freely a robust person in India perspires through a thin garment, can understand that if the cloth were thoroughly impregnated with the cantharadine of that very powerful vesicant, the Telini, the result would be as dangerous as that of an extensive burn." He further states that Mr. Todd has published ample evidence in support of the idea that the deaths of several historical personages in India were caused by poisoned robes.

A curious case in which the poisoner attempted to prove that the medical treatment was responsible for the crime happened in France a few years ago, when a woman was charged at the Paris Court of Assizes with attempting to murder her husband.

[1] *Manual of Medical Jurisprudence in India.* Norman Chevers.

It was known that the couple had lived unhappily together, and arrangements had been made for a divorce.

One morning the husband complained of a severe headache and his wife suggested a dose of antipyrine, which she gave him in some mineral water. He remarked to her at the time that the draught had a peculiar taste. Later in the day she administered sundry cups of coffee to him, but he grew rapidly worse and at night a doctor was summoned. He failed to diagnose the complaint, and called in other medical men, who were equally puzzled. One thing which they all noticed, was a peculiar dilatation of the pupils of the patient's eyes.

A consultation was held the next day, and shortly afterwards one of the medical men received a note from the lady in which she stated that her husband was "black." "He was dead, more dead than any man I ever saw."

The doctor at once went to see the patient, and found him in a state of collapse. He bled him twice and injected caffeine, but he still remained motionless. After a time it occurred to the doctor that the patient's symptoms resembled those of atropine poisoning, and, resorting to other measures, he eventually brought him round. Then he remembered that the lady had previously asked him for some morphine for herself, and when he had refused it she requested some atropine for her dog's eyes. He wrote her a prescription for a solution of atropine, containing ten per cent. of the drug, and took it to the chemist himself. On further inquiries it was proved that the lady had procured atropine upon various other occasions by copying the doctor's prescription and forging his signature.

At the trial the medical evidence was very conflicting, but the consensus of opinion was in favour of the theory that atropine had been administered in small, repeated doses. The accused woman declared in her defence that atropine had been put into the medicine for her husband in mistake by the chemist who had dispensed it. There was no evidence to support this theory, and she was found guilty and sentenced to five years' penal servitude.

A modern instance of the poisoned boot came to light a few years ago in a case of death by the absorption

of a poisonous boot-blacking. The victim, a young man, had been to a dance, and shortly afterwards became unconscious and died in four hours. For some time the cause of his death was a complete mystery, when a few days later a bottle of blacking was found in his room, with which it was discovered he had blacked his shoes on the evening of his death. The colouring had penetrated his socks and stained his feet and ankles. On analysis the solvent in the blacking was found to consist of nitro-benzene, an extremely poisonous liquid, largely used in the manufacture of the cheap, strong-smelling perfumes and soaps so frequently used. This was no doubt rapidly absorbed by his feet when dancing, and so caused his death.

A great deal of fiction has been written concerning the so-called poison rings of the sixteenth and seventeenth century, which are generally taken to mean a finger ring containing a secret receptacle for carrying some poisonous substance. In the majority of cases it has been found that these receptacles were originally intended for hair kept as a "memento mori" or for fragments of religious relics.

Rings have been described as being fitted with a tiny envenomed spike by means of which the wearer could inoculate his victim by a grasp of the hand, as described in the following story published a few years ago in a Paris journal.

It stated that when examining an ancient ring he had picked up in the shop of an antiquity dealer in the Rue St. Honoré, a customer scratched his hand with the sharp part of it. While still talking to the dealer, in a few moments he suddenly felt an indescribable feeling, as if his whole body were paralysed to the finger-tips, and he became so ill that it was found necessary to send for a medical man. The doctor diagnosed it as a case of poisoning and after the prompt administration of an emetic the patient recovered. The medical man is then said to have examined the ring and found attached to it inside, two lions' claws made of sharp steel, with grooves in them which contained the poison. Having long resided in Venice, he recognized it as being what was formerly called the "annelo della morte," or "death ring," often used by Italians in the sixteenth and seventeenth centuries.

Outside the realm of romance, however, there is little doubt that rings were used in ancient times as a medium for carrying poisons. This was originally done for the purpose of self-destruction, or at a later period may have been found useful as a lethal weapon against an enemy. There are several specimens of these rings with traditions attached to them which bear the evidence of authenticity.

In the troublous times of the Roman Emperors, when those who took a prominent part in public affairs were liable to be suddenly thrown into prison at the word of a capricious monarch, rings containing receptacles for poison are said to have been often worn, so that the contents could be swallowed to save their wearer from torture, imprisonment or an ignominious death.

Rings of the Roman period are always wrought with the hammer, and never cast; they were thus hollow and would easily afford a convenient receptacle for poison. Pliny records that when Marcus Crassus robbed the Capitol of the gold deposited there by Camillus, the custodian who was responsible for its safety "broke the stone of his ring" and died shortly afterwards.

An interesting Roman gem which might have been used for this purpose is in a London museum. It is an onyx, upon which is engraved the head of a horned fawn. The stone itself has been hollowed out, forming a cavity sufficiently large to carry poison, to take which it would only be necessary to bite through the thin shell of the onyx and swallow the contents of the cavity.

Further mention of these hollowed gems is made with reference to Heliogabalus, to whom it was foretold that he should die a violent death. It is said "he therefore prepared against such an emergency, halters twined with silk, and poison enclosed in rubies, sapphires and emeralds set in his rings to give him a choice of deaths." It is said of Demosthenes that having given up all hope of escaping from his enemies the Macedonians, he swallowed a poison which he carried about with him concealed in a stylus.

Hannibal also is said to have taken his life in a similar manner, and when hunted and in dread of being delivered into the hands of the Romans by Prusias, King of Bithynia,

took the poison which he always carried with him concealed in the hollow of a ring. Juvenal thus alludes to it in his Tenth Satire:

"Nor swords, nor spears, nor stones from engines hurl'd,
Shall quell the man whose frown alarm'd the world;
The vengeance due to Cannæ's fatal field,
And floods of human gore—a ring shall yield."

Although these stories describe what happened so long ago, it is curious to note how history repeats itself, when we recall the tragic conclusion to the trial of Whittaker Wright in London a few years ago. Immediately, when found guilty of the charges brought against him, either as he was listening to the judge's closing words or as he was leaving the scene of the trial, he swallowed, unobserved, some tablets of potassium cyanide which he had secreted about him, and died shortly afterwards within the precincts of the court.

Another instance of a similar refuge from persecuting fate is that of Condorcet, who was secretary to the Academy of Sciences of France, and who was proscribed by the Convention at the time of the Revolution in 1792. He took refuge in the house of a Madame Vernet in Paris, but fearing to compromise his protectress by a longer stay, he left his asylum with the intention of taking refuge in the country house of an old friend. Unfortunately, the friend was away and he wandered about sleeping at night in some stone quarries, but was at length arrested and taken to Bourg-la-Reine and lodged in prison. On the following morning, March 28, 1794, he was found dead in his cell, having swallowed some poison which he carried about in readiness for an emergency, concealed in his ring. On investigation, the poison was found to consist of opium and stramonium which he kept specially prepared.

Motley records that in the conspiracies against the life of the Prince of Orange about the year 1582, under the influence of the Court of Spain, the young Lamoral Egmont, in return for the kindness shown to him by the Prince, attempted to destroy him at his own table by means of poison which he kept concealed in a ring. Philippe van Marnix, Lord of Saint Aldegonde, was to have been treated in the same way, and

a hollow ring containing poison was said to have been found in Egmont's lodgings.

There are, however, rings of the sixteenth and seventeenth century of Italian workmanship that have traditions from which there is little doubt they were actually used for the purpose of carrying poisons. In examining rings, claimed to have been used for the purpose, it is necessary to note first that the poison must be accessible, and second, that the receptacle must be so constructed that it could be used without the ring being taken from the finger. Rings are often found with cavities and receptacles on the inside of the bezel, and it is difficult to believe that they could have been used for this purpose. There are many ancient rings extant, often called poison rings, with small boxes placed at the back of a stone, but these rings could only have been used for containing a perfume or a small relic. The construction of a ring, claimed to have been used for the purpose, must show reasonable grounds that it could have been so employed. The most interesting ring of the kind known, is one that was formerly in the possession of the late Bishop of Ely. It passed from him to a clergyman in London, who was a well-known antiquary. He claimed that it once belonged to Cæsar Borgia, and from the workmanship there seems to be little doubt it belonged to the period. Made of gold, slightly enamelled, it bears the date of 1503, and round the inside are inscribed the words :— " FAYS CEQUE DOYS AVIEN QUE POURRA." The bezel forms a hollow receptacle and on the front is engraved the name " Borgia," and in letters reversed are the words " COR UNUM UNA VIA." At the side of the bezel is a secret slide, which on being pushed reveals the cavity for holding the poison.

Another gold ring of the late sixteenth century, in the possession of an Italian nobleman, is said to have originally belonged to a member of the family, who was a prince of the Church. The bezel is elaborately wrought, and richly ornamented with dark blue enamel, picked out with red and white. It is apparently made in one piece, but a small portion in the centre has cunningly been made to open on a hinge, revealing a secret receptacle capable of holding quite a sufficient quantity of arsenic or corrosive sublimate to cause the death of two or three people.

Fairholt describes a jewelled ring of curious construction set with two rubies and a pyramidal diamond. The gold setting was richly engraved, and the collet securing the diamond opened with a spring, disclosing a somewhat large receptacle for "such virulent poisons as were concocted by Italian chemists in the sixteenth and seventeenth centuries."

One of the most curious rings of this kind was formerly in the possession of an Italian cardinal. It is beautifully wrought in fine gold and dates from the latter part of the sixteenth century. The shanks are partly enamelled in black and the bezel is rectangular; at the side of it is a very minute knob with a groove which could be easily turned with the finger nail without removing the ring from the finger. On turning the knob a cylindrical receptacle is revealed, which was most likely used for carrying some poisonous substance. There is a story told in connection with this ring that the secret receptacle was kept filled with tiny granules prepared from a deadly fungus, specially prepared for the owner. The secret receptacle of this ring is almost unnoticeable even when it has been opened.

In connection with the stories relating to a poisoned pin-prick, the following account which appeared in a London morning daily some time ago, is not without interest. The writer says: "The police are searching for a man who is alleged to have poisoned a girl in London under extraordinary circumstances. The girl, who was a typist employed in a Fleet Street office, said that she was walking to her office when a well-dressed man overtook her and grasped her by the wrist. Directly she reached her office she was overcome by four fainting fits in succession. When she recovered she showed a small punctured wound in her wrist and the police were informed." Then follows a lengthy description of the wanted man. "In various parts of America," adds the writer, "similar reports of devices employed by persons connected with the White Slave Traffic have been made known. When the victim faints in the street, the assailant who then passes as a relative or friend, calls a cab and drives off with the girl, the poison having been injected into the wrist by pressure from a poison ring!"

Probably one of the most curious receptacles ever used for

carrying poison was a wooden leg. Some years ago a man named Jasper Reed, who was once a member of a gang of international thieves, lost his leg through amputation while he was in prison for a theft of £480 from a bank in Antwerp. After his release he was lost sight of for a long time, until one day a wooden-legged cripple was arrested in the street in Antwerp in connection with the theft of some bank-notes, and afterwards poisoned himself while in prison. A post-mortem examination of the body showed that he had killed himself with potassium cyanide, and a bottle containing the poison was found concealed in a hollow receptacle in the wooden leg he was wearing.

There is a tradition that Pope Clement VII, one of the Medici, was poisoned in 1534 by the fumes of a torch impregnated with arsenic carried before him in a religious procession. This is quite within the realm of possibility, especially if the torch or candle had been so prepared that it would give off a certain amount of arseniuretted hydrogen while being burnt in a confined space.

The poisoned flowers of mediæval romance, although they have been discredited in the light of modern science, must not be dismissed as entirely improbable, as evidenced from the following curious case which occurred in London a few years ago. A hawker with a barrow filled with bunches of lavender, was noticed talking wildly in a street in Stockwell. In a few minutes he was seen to fall insensible and was removed to Lambeth Infirmary, where he died shortly afterwards. The medical officer of the institution said he found the man was suffering from nitro-benzene poisoning, and in his pockets were discovered seventeen packets of lavender seeds and a bottle of oil of mirbane (nitro-benzene) which he had evidently used to increase the perfume of the lavender he sold. The doctor stated that in his opinion, the man had been overcome by the vapour of the nitro-benzene he had inhaled from the lavender on his barrow

Probably the most deadly poison known to science to-day exists in the form of an innocent-looking white powder, which is highly dangerous even to handle. It emits a slight vapour even when exposed to the air, which if inhaled would cause instant death. It has been estimated that if three grains

were diffused in a roomful of people it would kill every one present. It is hardly necessary to state that poisons of such great virulence as those revealed by modern chemical research, were unknown to the chemists of the Middle Ages, and it is equally certain that the latter knew of few poisonous bodies that are not familiar to chemists of the present day.

In the military poison plot investigated in Austria in 1909, and referred to in detail elsewhere, the gaol authorities were at a loss to account for the prisoner's constant demand for flowers for pious purposes while he was on remand. It was only discovered by intercepted letters that he wanted them in order to smuggle poison into his cell, which he apparently succeeded in doing. He requested his wife to insert the poison in flowers which he asked for so he could place them on the altar which he had erected in his cell. The letter to his wife in which this was discovered reads: "I should like to commit suicide, but will not, as I must work for you and for the children. You can save me. Get me flowers and have some atropine or hyoscyamine. Victor or —— will obtain it for you, in liquid and solid. Put it carefully in a small quill and seal it up with wax. Put this quill in a carnation, the calyx will hold it well, then tie the calyx round with a thread as they do in florists' shops." It appears that some poison actually reached him in this ingenious manner.

A curious case in which a poisoned bed played an important part came to light in America a few years ago, when a woman named Mary Kelliher was tried at Boston on charges of poisoning her husband, three children, a sister and sister-in-law. These people mysteriously died during a period of three years; but after the death of her daughter, in July 1908, suspicion was aroused, and a post-mortem was held which disclosed the presence of arsenic in the body. The bodies of the other five persons were then exhumed, in all of which arsenic was found. There was, however, no evidence connecting the woman with the administration of poison to her victim until it occurred to the District Attorney to examine some of the furniture in the bedroom. The mattress on which all of those of the family who had died had lain was then cut open and carefully examined. In the hair stuffing considerable quantities of arsenic were discovered,

which suggested it had been specially impregnated, so the poison could be inhaled during sleep by the person lying on the bed. Ingenious as this suggestion for the prosecution was, as to how the poison came into the bodies of those who had died, Mrs. Kelliher was acquitted after being fifteen months in prison on this charge.

CHAPTER XX

LOVE-PHILTRES AND POISONS

THE employment of certain substances in the form of charms or potions to incite the amatory passion has been practised from a time of great antiquity. The idea involved in the use of love-philtres, as they were termed at a later period, was no doubt based to a certain extent on physiological principles and was probably first suggested by observation of the habits of the lower animals. The early Hebrews are said to have employed the fruit of the mandrake, which were known by the suggestive name of "love-apples," for this purpose.

The popularity of the *philtra* or *pocula amatoria* among the ancient Greeks and Romans at a later period can readily be understood in an age given to sensuality in its grossest forms. Medea was regarded as the greatest adept in the art of preparing philtres, and hence the term "Medei de herbae," used by Horace and Ovid to designate the substances generally used. Next in reputation came the Thessalian women, who were supposed to have acquired the art from Medea, and who were said to be versed in all the secrets relating to poison and sorcery.

Lucretius, the great philosophical poet of the Ciceronian era, is said to have written his poem entitled "On the Nature of Things" in the intervals of delirium occasioned by a philtre which had been secretly administered to him by his wife or his mistress, Lucilia, and it is stated that Lucullus, the Roman general, died in a state of delirium from a similar cause. Thus the effects of these potions were evidently often more serious than was contemplated by those who used them.

Ovid, the exponent of the amatory art, judging from some of his lines, was evidently no believer in this method of

procuring affection so much practised by his contemporaries. He writes—

"Who so doth run to Hæmon arts
I dub him for a dolt,
And giveth that which he doth pluck
From forehead of a colt.
Medea's herbs will not procure
That love shall lasting give,
No slibbersawces given to maids
To make them pale and wan
Will help; such slibbersawces mar the minds of maid and man,
And have in them a furious force of phrensie now and then."

Cornelius Nepos, Plutarch and other early writers also state that the love-philtre was often indeed but a poison cup, and the death of the Emperor Lucius is quoted as having been due to a draught of this description given to him at the instance of Calisthenes.

That the effects of these philtres were often dangerous and sometimes fatal is hardly to be wondered at, when we consider the extraordinary nature of some of the substances used in their composition in ancient times. They were generally compounded with much mystery by the old or wise women, who had a reputation for sorcery, and they observed the greatest secrecy as to their composition.

According to the most authentic writers these ingredients were both grotesque and filthy, such as "the hair that grew in the nether part of a wolf's tail, the penis of a wolf, the brain of a cat, the brain of a newt, the brain of a lizard, a certain fish called 'remora,' and the bones of a green frog which had been left bare by ants." Young swallows were buried in the earth and after a time disinterred. The bodies of those that were found with open bills were believed to provoke love, while those with closed beaks were given to produce the opposite effect.

The testicles of certain animals were employed, selected doubtless for a physiological reason, and the menstrual blood, especially that of a red-haired woman, was highly esteemed and was believed to produce powerful effects.

Poisonous properties were attributed to the blood of both men and animals by the ancients.

Herodotus states, that Psammenitus, King of Egypt, was put to death by Cambyses by means of a draught of bullock's blood. Themistocles, who wished to die rather than fight against his countrymen, is also said to have drunk a goblet of the blood of a sacrificial ox and to have expired shortly afterwards. Zacutus Lusitanus relates several instances of the evil effects resulting from drinking blood and records the case of a student to whom was given in joke two ounces of the blood of a red-haired woman, mixed with sugar, with the result that he became insane.

In the Anglo-Saxon Leechdoms, an ointment composed of goat's gall, incense, goat's dung and nettle seeds is recommended as an application to promote passion.

Another substance highly esteemed as an ingredient in love-philtres was the mysterious hippomanes, which is described as " a growth found on the forehead of a newly born foal," to which Ovid alludes in the lines previously quoted.

Love-philtres and charms were also used by Eastern nations, and the Hindus still employ mango, champac, jasmine, lotus and asoka for this purpose. According to Albertus Magnus, the most powerful herb for promoting love is the " Provinsa," the secret of which, he says, has been handed down from the Chaldeans. The Greeks called this plant Vorax. This is probably the same plant now known to the Sicilians as " Pizzu'ngurdu," to which they attribute remarkable properties. They believe that if given surreptitiously it will provoke an ardent passion in the heart of the coldest and most chaste woman. The Sicilians have also great faith in the power of hemp to secure the affection of those on whom they set their hearts, and they gather this plant with certain ceremonies.

" As touching this kind of witchcraft," says a writer of the sixteenth century, " the principall part thereof consisteth in certain confections prepared by lewd people to procure love which indeed are mere poisons, bereaving some of the benefit of the braine and some of the sense and understanding of the minde." Yet even such men as Van Helmont believed in the efficacy of the love-philtre. Writing in the middle of the seventeenth century, he says, " I know a plant of common

occurrence which if you rub and cherish it in the hand till it becomes warm, and take the hand of another and hold it until it becomes warm, that person will forthwith be stimulated with love for you and continue so for several days." Reginald Scot states wolf's penis was an ingredient in the love-philtre of his time, and Frommaun mentions human skull, coral, verbena, urine and leopard's dung.

The mandrake root, which was a common ingredient in love-philtres in ancient times, is still worn in some parts of France as a charm for that purpose, and in Germany a belief in the power of endive seed to influence the affections still exists. In Italy basil was used to inflame the heart of the indifferent, and a young man who accepted a sprig of this plant from the hand of a maiden was sure to be inspired with love for her. Satyrion is another herb which is claimed to possess amatory properties, while other species of orchis, when eaten fresh, was believed to inspire pure love, and when dried was employed to check illicit passion.

Of other plants employed in the composition of love-philtres, mention should be made of the cyclamen, carrot, purslane, cummin, maidenhair, valerian, navelwort, wild poppy, anemone, crocus, periwinkle, pansy and the root of the male fern, which has an ancient reputation for inspiring the tender passion, although, curiously enough, its present use in medicine is as a vermifuge.

But superstition dies hard, and even at the present day the belief in the efficacy of love-charms is not yet dead in some parts of England. Among the uneducated in some parts of the country " All Hallow Een " is dedicated to the performance of certain love charms, in which the gum resin called dragon's-blood and quicksilver play an important part. Quite recently a Russian Jewess in the East End of London was indicted with having obtained money by false pretences from two women. From one, whose husband had deserted her, she obtained money to purchase candles into which she stuck pins which she said would attract the husband to his home again. This charm, however, did not work satisfactorily, and she insisted on having a nightdress, some sheets and pillow cases which she said she could prepare with a secret process so that one night the wife would wake up and find her husband beside

her. He would be wearing the nightdress, and the pillow cases she had treated with something which would have the wonderful power of preventing her husband ever again running away.

But all those charms failed, and even the final effort, in which a magic liquid was sprinkled about the room and the wearing of the clippings from the back of a black cat, proved useless in restoring the missing husband.

To the other woman, who wished her intended husband, to come from Russia, this modern magician gave two curious powders, with instructions that they were to be placed on the end of a hairpin and consumed in a flame which would show the man's love for her.

This modern witch's practice, which was said to be a large and lucrative one, was suspended for nine months in gaol, to be followed by deportation to her native land.

Ginseng root, which has been used for centuries in China to promote longevity, is also recommended as a love-charm. It is believed by the Chinese also to have the power of rejuvenating the old and stimulating the senses of the young.

Among primitive peoples the love-philtre is still in vogue, and Mr. P. A. Talbot found it generally used among the tribes in Southern Nigeria, through which he travelled, especially among the mysterious race called the Ibibios, who live in the Eket district of the country. "It is a custom," he states, "for a love-potion to be given by men and women to gain the hearts of those whom they desire, or to wrest affection from rivals."

A few years ago some extraordinary stories were revealed in the trial of the wife of a wealthy man living at Lakewood, Ohio, who was believed to have been murdered. It was stated during the trial that a spiritualistic practitioner had been called in by the lady who had administered to her husband a magic potion or philtre which contained arsenic; when this failed, he is said to have been assassinated.

CHAPTER XXI

POISONS IN FOOD

Poison in Beer—Poison in Food—Poison in Honey—Poison in Cocoa and Chocolate

IN the latter part of the year 1900 a fairly widespread epidemic of peripheral neuritis of the extremities and its attendant symptoms was noted by medical men in certain districts of Manchester. In addition, many of the sufferers complained of swelling of the legs, weak circulation, vomiting and pigmentation of the skin. It was noted by the medical officers of the various hospitals who examined these patients that in every case they were heavy beer drinkers, and patronized public-houses supplied from certain breweries.

The mysterious epidemic spread and cases were reported from different parts of the north of England. In Manchester and Salford there were five hundred and twenty-two cases, in Liverpool seventy-one, fifty at Birkenhead and fifty at Stourbridge ; at Darlaston, Staffordshire, there were upwards of fifty cases, forty were reported from Chester, thirty-two in Birmingham and thirty in Leeds and district.

Many deaths ensued, and the whole train of symptoms and circumstances were such that, had they happened two or three hundred years ago, they would have created consternation.

The beer was the clue, and scores of samples were purchased at public-houses miles apart, and the ingredients used in the manufacture of the beer in breweries spread over the North of England were carefully examined. Dr. Hitchin, the Medical Officer of Health for Heywood, Lancs, stated that two or three hundred persons were attacked, and he discovered arsenic in stout as well as beer.

The result of the analysis was startling, as in the majority

of the cases it led to the discovery of arsenic. This was first detected by Dr. Reynolds, of Manchester, and at his instance the public were warned against drinking cheap beer.

Meanwhile, research into the whole mystery went on. That large quantities of the beer were contaminated was certain, but how the poisonous substance got into it was the question which had to be determined.

A clue was found when certain experts who were engaged in investigating the materials used in the brewing of certain kinds of cheap beer, discovered that in every instance glucose had been used in the preparation, and on analysis of the glucose it was found to be impregnated with arsenious acid. This was followed by still further examination of the materials employed in making the glucose, and it was found that the sulphuric acid used for this purpose was brown in colour and contaminated with arsenic, showing that it had been made from iron pyrites containing arsenic as an impurity, and thus the ring of evidence was complete and successful.

This opened up possibilities of even more widespread poisoning. Samples of jams and golden syrup were obtained for analysis, but all gave negative results when tested for arsenic. It appears that there are only about a dozen manufacturers of glucose in England, a great deal of it being imported from America. It was therefore concluded that the makers of the contaminated glucose must be some particular firm who sold their product to brewers only, and that within a certain area. Some samples of glucose that were subjected to test showed in one instance a proportion of arsenic that was absolutely deadly, and this was located to one firm. They instantly sent out telegrams to their customers stopping the use of this ingredient. Everything was done to prevent further mischief, and the output of the poison-impregnated material was stopped. Heroic measures were taken by one brewery, which placed an embargo on all the beer in the cellars of their customers, until it was certified as pure by analysts deputed to visit them in turn. Some brews were recalled wholesale, and the loss to the firm amounted to several thousand pounds.

The next thing was to discover how the arsenic got into the glucose during the process of manufacture, and this was traced

down to a Spanish copper mine from whence pyrites was imported by a firm of manufacturing chemists in a northern county for the purpose of making sulphuric acid. The sulphuric acid in question was of the ordinary commercial variety, generally used in works for dyeing and similar purposes. It was usually of a brownish colour, and even though it was contaminated in any way for the purpose of such manufacture, no harm could ensue. If, however, without having it tested to see if it was free from deleterious matter, the manufacturers should then use glucose containing this ordinary commercial variety of sulphuric acid for their product, a considerable amount of arsenic would remain in it. In this way it was sold to brewers who used it in the manufacture of their beer, and this mineral poison was thus carried on through the various processes till it reached the consumer with the dire consequences already described.

It is stated that brewers thought they could obtain a better-coloured and more satisfactory beer by treating the malt with invert sugar and glucose. Invert sugar is cane sugar boiled in solution with diluted sulphuric acid, and glucose is starch boiled in a similar manner. It was obvious therefore that the only ingredient which could have been contaminated with arsenic was the sulphuric acid.

The manufacturers of the glucose had, of course, not the faintest idea that the mysterious poison which had caused so many deaths emanated from them. Although it was said that the sulphuric acid was tested, curiously enough it was admitted it was never tested for arsenic, and the explanation was put forward that the pyrites sent from the mine in Spain had been obtained from a new lode which was charged with an undue proportion of arsenic. After a full investigation had been made, special precautions were laid upon brewers to examine all ingredients used in making the beer, and since this time no similar cases have been recorded.

The epidemic had developed into almost a panic in and around Manchester, and several cases of ordinary illness were put down to arsenical poisoning. The hospital wards were filled, but the prompt measures taken had their effect. It was said by the Manchester coroner at one inquest that the only pleasant feature of the epidemic was for the temperance

people. The consumption of fourpenny ale was not a fraction so great as it was a fortnight previously. Arsenic had proved a temperance argument.

Within the last few years many cases of food-poisoning of one kind or another with fatal results have been reported. It is probable that in spite of every precaution such cases will occasionally occur. Some may have been due to the fact that bacteria were actually living in the food at the time it was consumed, or as probably in the case of the Loch Maree fatalities, it may have resulted from toxins left by bacteria which once lived in the food. The former type of food-poisoning which is most common in this country results from the eating of food which has become contaminated by certain bacteria, whose presence may be due to disease in the animal before it has been slaughtered, or if they have gained access to the food in course of its preparation.

The heat used in cooking is generally sufficient to kill such organisms, and no doubt it often does so. Again, it may be introduced from the outside, as in a recent case when the instrument of infection was found to be a contaminated knife used in cutting ham for sandwiches.

In cases of food-poisoning due to a toxin formed by organisms, these probably being dead, the organism concerned is what is known as *Bacillus botulinus*, so called from its having first been discovered in German sausages. The bacteria thrive especially in a medium in the absence of oxygen, and so breed with rapidity in air-tight tins or inside sausage skins, and are to be found even in vegetable matter. They form a very powerful poison, acting upon the nerve centres in the brain, causing paralysis of the muscles which move the eye and eyelids and those concerned in speaking and swallowing. The resulting disease known as botulism has fortunately been rare in England, where there is not a very large consumption of tinned meat or vegetables, but it has been frequent in both America and Germany.

Botulism and food-poisoning, therefore, must not be confused, as the former is a poisoning by a specific toxin and the latter may be called an infection.

A very curious case of poisoning was brought to light some years ago at an inquest held on a woman who had died with

symptoms of poisoning after attending a wedding breakfast. The guests, after regaling themselves with wedding cake, had finished up with kippered herrings, and shortly afterward one of them was taken ill with severe pain and died.

During the inquest it was pointed out, that it was possible that some of the ingredients used in curing the kippers, when brought into contact with almond paste on the wedding cake, would possibly liberate prussic acid, if the almond paste had been made with bitter almonds, in sufficient quantity to cause death.

The poisonous effects produced by honey gathered in certain districts has been known for centuries, and the story of some of Xenophon's soldiers having been poisoned by this means more than two thousand years ago is well known. This poisonous property was formerly attributed to the bees having gathered the honey from the flowers of henbane and hemlock, which grow largely in the neighbourhood of Trebizond, but it has now been proved that the poisonous principles may be extracted by the bees from other plants, according to the locality in which the honey is found. Thus American honey has been found to contain poisonous ingredients derived from gelsemium or golden seal.

A serious case in which fourteen persons were poisoned from eating honey, one of whom died, is reported from Princetown, N.S. The honey was found to contain Andromedo-toxin, a poisonous principle obtained from certain ericaceous flowers.

There are other instances on record of poisoned honey which has been contaminated by bees which have carried poison from certain flowers, but cases in which poison has been introduced into honey for criminal purposes are rare.

Some years ago a young man was arrested at Coire, in Switzerland, on his own confession of having murdered two young women, to whom he had been engaged to be married, by introducing strychnine into the cells of some honeycomb which he presented to his victims. In each case the girls died in great agony on their wedding eve, after a visit from the man. One victim had been buried two years, and the other some months, before suspicion was aroused and the bodies exhumed for examination, and the man was convicted of the crime.

Within recent years the contamination of food substances

with arsenic has come into some prominence, not only in connection with certain cases in which chocolate sweetmeats have been used as a medium for the administration of arsenic, but also in substances in common use, such as cocoa. Towards the end of November, 1922, the Public Analyst, acting, for the Reigate Town Council, reported on seven samples of cocoa that had been taken under "The Sale of Foods and Drugs Act," and he found that one contained arsenic (arsenious oxide) to the extent of 1/75th grain to the pound of cocoa. It was obvious that such a report could not be allowed to remain unnoticed, as, according to the Royal Commission on Arsenical Poisoning, it is illegal for an article of food to contain 1/100th of a grain or more of arsenic per pound.

The matter was reported to the Minister of Health who took a serious view of it, and it culminated in two summonses being issued by the Surrey County Council against the vendor and the manufacturer, the charge being that the cocoa was "adulterated with arsenic (arsenious oxide) to the extent of 1/40th of a grain per pound."

The cocoa had been purchased at a shop in Richmond and was labelled "Pure Cocoa Essence. Guaranteed absolutely pure Cocoa." On analysis this sample was found to contain 1/40th of a grain per pound, but on inquiry from the manufacturers it appeared to be a mystery how the arsenic was introduced into the cocoa. The investigation was rendered more difficult when it was found that the actual sample purchased was a blend of seven different cocoas; however, samples of these were taken, and one was found to contain arsenic to the extent of 1/10th of a grain per pound.

On tracing back the source of contamination it appears that an alkali such as potassium carbonate is mixed with cocoa to render it more soluble, and in this case the impurity was discovered in the potassium carbonate, which was found to contain a substantial quantity of arsenic. The manufacturers, on finding this out, sacrificed three hundred and fifty tons of cocoa and did everything they could in the interests of the public to stop the sale. The retail firm, directly they heard of the impurity, also withdrew sixty-five tons from their shops and twenty-five tons from their warehouses and had them destroyed.

Although potassium carbonate is not used in the making of chocolate, several cases have been reported of illness caused through eating sweets in this form.

About the same time a London lady was taken seriously ill after eating some marzipan sweets which she purchased at a Church bazaar. It appears she ate about half a dozen of them and became ill shortly afterwards, the symptoms pointing to arsenical poisoning.

Although powdered glass has been used for criminal purposes from time to time, it is not generally known that glass itself may be contaminated with arsenic.

Some time ago it was found on making an analysis of a bottle that the glass contained both arsenic and lead, insomuch that they probably contaminated some potassium carbonate that had been kept in the bottle.

The danger in careless packing and handling of arsenic imported to this country has recently been commented on by the Medical Officer of Health for the Port of London. He states in a report, that " a ship from Oporto had aboard about fifty bags of shelled almonds. On the same deck were twenty-two cases of white arsenic.

" When examined by the inspector two of these cases of arsenic were standing on end with their heads open, and one was leaking at its bilge on to the deck.

" Two of the bags of almonds which had become displaced showed arsenic on their surfaces. Minute quantities of arsenic were found on almonds taken from one of the bags."

In another case a ship had landed 160 cases of arsenious acid at the King George V Dock.

" The cases containing the arsenic were composed of old, dry wood, and from some of them the poison was leaking on to the floor of the shed. The possibility that some of it might find its way into any food handled in the same shed cannot be overlooked."

That such carelessness might lead to very serious consequences is obvious.

CHAPTER XXII

POISONS USED IN WARFARE

THE use of poison as a weapon in warfare is not by any means a modern practice. It may be traced back to the use of poisoned arrows and spears, and from the time of the discovery of gunpowder, when surgeons believed that a bullet formed a septic wound.

François Bernier, who died in Paris in 1688, served in the capacity of physician to Aurungzebe, the Grand Mogul. In describing a battle fought at Agra against the Mogul, he states that the Rajputa, a hereditary race of warriors, were great opium-eaters and consumed it in large quantities, and when going into battle they always doubled the dose to their soldiers, which had the effect of rendering them insensible to danger. "They threw themselves," he states, "into combat like wild beasts, knowing no retreat, and died at their Rajah's feet if he would keep his post."

It was on April 22, 1915, that the French and Canadian troops in the front line in the neighbourhood of Langemarck saw what appeared to be a wave of curious green mist approaching them which soon caused them to choke and gasp and seemed to seize them in a deadly grip from which they could not escape. A gap was made in the line in that sector, but the results of this first use of poison gas in the Great War, although serious, were not disastrous.

A thrill of horror went up from the Allied nations against this fiendish manœuvre, which was regarded as a crime against humanity and will never be forgotten. The gas first used was chlorine, the effects of which are well known, and was liberated by the enemy from cylinders concentrated on a front of six hundred yards. The first attack was evidently made as an experiment, and in the interval, owing to the

activity of our chemists, our men were supplied with a temporary respirator as a defence from this new peril.

During the following months of May and June, several other gas attacks were made by the Germans, but not on a very large scale, as for some time the prevailing winds had been in favour of the Allies, which would be likely to blow the deadly cloud back into the enemy's lines.

On December 19, 1915, a much more important attack with poison gas was made on the British front in the Ypres salient, on a front of three and a half miles. Gas was released continuously for an hour, but thanks to the protective measures which had been adopted by this time, although 25,000 troops are stated to have been in the area of attack, the casualties were small.

Disappointed in the effects of their first essay with this form of weapon, the Germans next introduced phosgene, a very deadly vapour, and one against which the respirators then used were no protection. A new type of respirator, however, was speedily devised, and proved effective against the danger. The gas helmet with its special filter, invented by Lieut.-Colonel Harrison, came into use, and our men became very quick in placing it in position.

In August 1916 they launched a highly concentrated phosgene attack against the Allied lines, on a hot and stifling day, the effects of which were felt as far as nine miles behind the lines.

The uncertainty of the atmospheric conditions led the Germans to adopt later another vile method of disseminating poisons vapours, and they introduced the gas shell, of which numerous varieties were eventually made. The contents of these shells were distinguished by the Germans by special marks in the form of coloured bands on the shell cases; the so-called "blue cross" contained diphenyl chlorasine, a substance which when scattered as a fine powder caused intense sneezing to those in the neighbourhood of it. Two-thirds of the shell were filled with high explosive, and the intention was to produce uncontrollable sneezing, so that the wearing of a respirator was made impossible.

Other gas shells were filled with di-phosgene (trichlor methyl chlorformate), which formed a vapour of a very deadly

character immediately the shell burst and produced most serious consequences. Another type contained in addition to di-phosgene a quantity of chlorpicrin, which was not only deadly, but produced extreme running at the eyes and nose.

These vapours, however, were succeeded in July 1917, in the neighbourhood of Ypres, by the use of di-chlor-ethyl sulphide, called "mustard gas." Mustard gas is undoubtedly one of the most terrible and deadly of the gas poisons used. It not only blistered the skin and turned it brown, but caused intense inflammation of the eyes and lids, the throat and nose, often causing permanent blindness and loss of voice, and eventually producing septic broncho-pneumonia, frequently ending in death.

In the autumn of that year it was used on a large scale against the Italians, and largely assisted the Austro-German armies in the break-through at Caporetto.

Clothing, boots, soil or other things which came in contact with it were liable to affect seriously those brought near them, days after the articles had been contaminated, but even against this terrible weapon our gas masks were made effective, if put on with sufficient quickness and the men could be warned in time.

In spite, however, of this fiendish weapon, the Allies held their own, and were enabled by scientific and other means to combat these attacks. It is satisfactory to note that, however deadly were the gases employed, some means was soon found to counteract them effectively.

The use of poison as a lethal weapon in the Great War was by no means confined to deadly gases. Numerous instances, many of which are undoubtedly authentic, were recorded from 1914 to the time of the Armistice of poisoned sweetmeats and disease organisms that were dropped from enemy aeroplanes in France and other countries.

On November 4, 1916, it was reported by cable that Prince Mercier, the youngest child of King Ferdinand of Rumania, who was only five years old, had died of typhoid.

According to Helen Vacarescu, the Rumanian poetess, the Prince was the victim of poisoned sweets which were dropped by German airmen into the streets of Bukarest and

other cities of Rumania. Some of these sweets are said to have fallen into the garden of the Royal Palace, and the little Prince while playing there took some up and ate them. According to Miss Vacarescu, he fell sick almost immediately, and when he told about the sweets he had eaten, a search was instituted, and some of them were found in the garden. On a scientific investigation being made of these, they were found to be impregnated with typhoid bacilli. According to *Le Temps* it is said that all the families who ate the sweets died.

According to *The Times* of October 31, 1916, an aeroplane coming from Transylvania scattered about boxes of poisoned sweetmeats for the purpose of murdering children, and this excited the greatest indignation in the district. According to further reports, several of the sweets contained the micro-organisms of various infectious diseases.

On October 12, 1916, a report was received from Petrograd of an enemy air squadron which dropped bombs on Constanza, the Rumanian Black Sea port, as well as darts and poisoned sweets saturated with cholera bacilli.

According to an official report, on October 9, 1916, a squadron of eight German aeroplanes flew over Bukarest at eleven o'clock one morning and dropped bombs in the neighbourhood of some linen warehouses. The damage done was insignificant, but an investigation of the German Legation led to the discovery of numerous cases of high explosive buried in the garden, as well as phials labelled Virus Morbi Glanders, which are supposed to have been sent to propagate an epidemic against cattle and horses in the country. The discovery is vouched for by a representative of the United States Legation.

In May 1917 it was reported from Rome that during an Austrian air-raid over Codigaro, near Ferrara, sweets were thrown out which were found to contain cholera bacilli. The local authorities issued an order directing that all wells thereafter should be kept covered.

On December 17, 1917, an account is reported of an air-raid on Calais, where the Germans dropped a number of small boxes bearing instructions in English to the effect that they contained soup-powder. Directions were given to dissolve the powder in water and to add to it a pint of boiling liquid.

Several deaths resulted from using these packets, and an analysis proved that they contained an extremely virulent poison.

On February 20, 1918, it was reported from Southend that when a raiding Gotha passed over the town the previous Monday night, a curious patter was heard on the roofs of some houses in the district. In the morning a number of sweets about the size of small eggs were found in the roadway and gardens, believed to have been dropped from the enemy aeroplane. They were handed to the medical officer of health for Southend, who reported that he had discovered traces of arsenic in the sweets found on the public footpath.

On July 29, 1917, a sensation was caused in America by an announcement made by the Attorney-General, that expert examination had disclosed the presence of tetanus germs in court plaster which was believed to have been distributed by German agents, and he essayed to warn the public to avoid using plaster of that description. The New York State Health Department published a statement that specimens of such plaster sold by pedlars had been sent to the State laboratory for examination. Despatches had been received from Western and Southern areas of the United States, reporting epidemics of anthrax in herds in the same region, after the use of such plaster recommended for cuts and other injuries to cattle.

Poison was used extensively in various ways by the German forces, although frequently where wells were said to have been poisoned, our men drank from them freely without any bad results. On the other hand it was not uncommon in some cases to find, left behind in trenches, large tins of cocoa and other tempting commodities which on analysis proved to be contaminated.

The use of bacteriological methods was also not neglected by the enemy, and it was stated in a despatch from Washington on July 9, 1917, that the Germans, before evacuating the territory west of St. Quentin, inoculated the French inhabitants, men, women and children, with tuberculosis bacilli. The *New York World* commissioned Dr. Theodore C. Beebe, a pathologist, of Boston, in charge of the American Ambulance Hospital at Neuilly,

to make an independent investigation of this matter. Dr. Beebe, in his report, states that while there was no way to obtain indubitable proof of the allegation, the evidence pointed to the belief that the Germans made a deliberate attempt to spread tuberculosis throughout France under the pretence of vaccinating the inhabitants to protect them from smallpox which they said was sweeping over the country. Dr. Beebe pointed out that only those persons vaccinated developed tuberculosis, while unvaccinated children and older persons, although suffering from pneumonia and other diseases, showed no trace of it. He found these inoculations were never made until a month or six weeks before the Germans were evacuating the place; in other words, when it became apparent to the Germans that they were forced to retreat. Of course only an examination of the serum at the time of the inoculation would determine whether it contained tuberculosis bacilli or not; that of course was impossible, but the investigator concluded that the facts he had ascertained led him to the belief that the charge brought against Germany of having committed this most horrible crime was true.

On March 30, 1917, it was reported that a discovery had been made of a plot to kill the cavalry horses within the British lines. This was to have been done by bacteriological cultures introduced into the food or by making a wound inside the horse's nostril with a contaminated wire. This plot, which was discovered in time, was part of the German plan of retirement, but was fortunately found out and frustrated before any casualties occurred.

In the latter part of June 1918 some sensation was caused in London by a story that was circulated of a mysterious man who was distributing chocolate sweets broadcast. At that time most of the conductors of omnibuses were women. Suspicions were aroused when two of these women, after accepting chocolates from a male passenger, who was said to have been well dressed, became ill. Two omnibus girls and a tramway girl who accepted some sweets in the same way, handed them over to the Metropolitan Police, and the authorities were placed on the watch; in almost every case the sweets were offered by the man when he was in the act of descending.

At Cedar's Road, Clapham, the same man gave a tramway

conductress a box containing five chocolates. The man is reported to have said, " You won't taste any more like this for years to come." The girl, having been warned by a police notice posted in the tramway depot, did not eat any of them. Several cases were reported from the East End, and several chocolates were found on omnibus seats after passengers had left. The object of the mysterious individual not having achieved its effect, his operations eventually ceased, and nothing further was heard of the matter.

Probably the only case on record of the use of a poison gas in an attempt to murder, was reported from Germany in November 1922, when two men were charged at Leipzig with attempting to kill a man called Scheidemann at Cassel on Whit-Sunday. They carefully charged glass syringes with cyanogen gas, and secreting them in their pockets, they awaited the coming of their victim, and discharged the poison gas in his face. Scheidemann eventually recovered, and the two men were convicted of an attempt to kill him.

During the Napoleonic Wars the curious suggestion was made by Perceval that the Allies could bring the French to their knees by prohibiting the importation to the Continent of cinchona bark and other valuable drugs. " The suggestion," says a writer of the time, " is well worthy of the statesman. To bring the French to reason by keeping them without rhubarb, and exhibiting to mankind the awful spectacle of a nation deprived of natural salts ! Without castor oil they might for some months be able to carry on a lingering war, but could they do without bark ? Will the people live under a Government where antimony cannot be procured ? Will they bear the loss of mercury ? Depend upon it they will soon be brought to their senses, and the cry of ' Bourbon and Bolus ' be raised from the Baltic to the Mediterranean ! "

CHAPTER XXIII

CRIMINAL POISONING WITH BACTERIA

THE exploitation of pathogenic bacteria for criminal purposes has not been neglected by the poisoner, but owing to ignorance on the one hand, and the difficulty of obtaining the material on the other, it has led to failure even with the most cunning. The person with sufficient scientific knowledge to prepare cultures is not as a rule one with criminal instincts, and the clumsy handling of such deadly material would lead to certain detection if used by one who did not understand it.

One of the most remarkable cases on record occurred in Petrograd in 1911, when a man named Patrick O'Brien de Lacy, said to have been a lineal descendant of the Irish kings, was accused of having procured the death of his brother-in-law, an official in the Ministry of the Interior, his father-in-law, General Buturlin, and his mother-in-law, in order to inherit a large amount of money of which rumour said they were possessed.

From his youth upwards O'Brian de Lacy is said to have been a ne'er-do-well. Having left a Russian school without finishing his education, he frequented the London Polytechnic, and also studied naval architecture, but all the plans he founded upon his technical knowledge were nullified by the defeat of the Russian navy at Tsushima and other events. He first married a lady of excellent family, who, being herself married, agreed to divorce her husband in order to espouse him. He then entangled her in all his own financial difficulties, spent her money, and obtained power of attorney to transact her business. Finally, making the acquaintance of a Mdlle Buturlin, he divorced his first wife as she divorced her first husband. Then he sought out a Dr. Panchenko and con-

spired with him to poison the lady before pledging his troth to her at the altar. After his second marriage, O'Brien is said to have laid his plans to remove every human obstacle that stood between him and his father-in-law's wealth with extraordinary cunning, and these he endeavoured to carry out by inoculating them with the germs of deadly diseases which included cholera and diphtheria. He arranged his scheme even to the smallest detail, and if there is such a thing as a genius in crime, this most extraordinary man was typical of it.

Having to employ a medical man to carry out his designs, like Romeo he selected a needy practitioner named Panchenko, before whose eyes he dangled a dazzling reward. Money was the magnet to attract Panchenko, and O'Brien de Lacy offered him, it is said, 10,000 roubles to compass the death of his brother-in-law, 50,000 roubles to dispose of his father-in-law, and 500,000 roubles if he put a speedy end to his mother-in-law, who was the richest of the family.

In 1910 the younger Buturlin died at Petrograd after a week's illness. He was an employee of the Ministry of the Interior, and symptoms during his illness or signs after death suggested foul play. Old General Buturlin, who arrived from Vilna before the funeral, stopped the interment of his son's body and demanded a post-mortem.

His widow endorsed this demand, both surmising neglect on the part of the physician, but on investigation it was concluded that blood-poisoning was the cause of death.

By a curious coincidence, on the same day, a man named Bobroff called on the Chief of the Secret Police. He told him he was a book-keeper and that a comrade of his named Petropavlovsky possessed proofs that young Buturlin's death was caused by Dr. Panchenko, who had also designs on the life of the General with a view to inheriting property. Petropavlovsky's story is a very curious one and may be given in his own words :—

" A conscience is the only possession I can call my own, and it has driven me here to denounce my unique benefactress. She is my landlady, Madame Muraviova, who allows me a room in her flat, and has been very kind to me. She is the mistress of Dr. Panchenko, with whom she has been hugger-

muggering of late in suspicious ways. The door and walls being thin, I have heard snatches of conversation, which I have pieced together, and I find they point to Dr. Panchenko as the instrument of young Buturlin's death and O'Brien de Lacy as the employer of that instrument. The penniless Dr. Panchenko often journeyed to Vilna, where O'Brien de Lacy resides, and always returned with a fat purse and high hopes. Madame Muraviova, too, babbled about her improving prospects, saying she was shortly coming into 300,000 roubles.

" One day in April, Dr. Panchenko left for Kronstadt, where plague-stricken dogs are studied, and after his return he talked of little else. Soon afterwards young Buturlin, Panchenko, and O'Brien de Lacy went on the spree together. The next thing I noticed was that Panchenko was weeping and sobbing. I entered the common sitting-room, and found him beside himself with excitement while his paramour was burning heaps of papers. She spoke first, saying that she had been scolding him for visiting a diphtheria patient without disinfecting himself. In an aside to Dr. Panchenko she asked, ' Did you do it properly ? ' He answered, ' Well, I squirted two full doses, although one would have been enough.' "

After this revelation, Dr. Panchenko was interrogated by the police, and he stated, that he treated the deceased for loss of energy and injected a certain remedy, but knew nothing of the cause of death. He had made O'Brien de Lacy's acquaintance in the train, and subsequently had business dealings with him. De Lacy was then asked for an explanation by the police, and he stated that his relations with the doctor were purely commercial, and he affirmed that he could not possibly benefit by young Buturlin's death. The police, however, attached so much importance to the story of the informer that they arrested Panchenko and O'Brien de Lacy.

It was while in prison awaiting trial that Panchenko broke down and revealed the full story in the following words :—

" Patients were brought to me occasionally by a friend named Raffoff, who acted as a tout, receiving a share of the profits. One day he introduced me to O'Brien de Lacy. We adjourned to a private room in a restaurant, where, in Raffoff's presence, he asked me if I would perform a certain illegal operation for 1,500 roubles. I assented.

O'Brien de Lacy seemed pleased, and gave me 100 roubles. I asked him to visit me in my own study. I was a physician of the St. Petersburg district of the Northern Railway.

"Subsequently O'Brien intimated that he would prefer to talk with me without a witness. I acquiesced. He told me he had just become a bridegroom, and the operation he really wanted was to have his future brother-in-law made away with. For this service he would pay 10,000 roubles. After that it would be necessary to remove the father-in-law. For that riddance I would be paid 50,000 roubles, and lastly, the old man's divorced wife must be launched into eternity. For this job he would not grudge 500,000 roubles. He impressed upon me the necessity of extreme circumspection, and advised me to begin with young Buturlin, to whom he proposed I should administer cholera germs on bread, buttered and covered with caviare. Death by cholera, he explained, would evoke no surprise at a moment when that epidemic was making havoc in Petrograd. Therefore he had much to say in favour of cholera germs, and informed me that young Buturlin was using anti-cholera subcutaneous injections.

"By this time I had extracted 2,000 roubles from O'Brien de Lacy. At last he introduced me to Buturlin, on the ground that we were interested in founding a sanatorium, but I was to whet his curiosity about a certain drug and get him as a patient. Then, instead of the drug, I was to inject some poison or other, and having done the job, to abstain sedulously from writing or telegraphing, as a kinsman of his, Count Roniker, who had been charged with murder in Warsaw, had been tripped up by a telegram. The plan was successful; I treated young Buturlin, substituting diphtheria toxin for the other drug.

"I received the germs from a chemist, who believed my story that it was required for experiments on rabbits. I injected two large doses into the victim's thigh. Later, I learned he was very ill, and, being conscience smitten, I wired for O'Brien de Lacy, who was furious that the telegram should have been sent. He exclaimed, 'You may as well give yourself up now.' I visited young Buturlin after this, and learned from his own lips that he had had high fever and sharp pains, but was now much better. The other physician who was called in did not diagnose the malady. Then I read of Buturlin's death in the papers. It occurred exactly as had been calculated, seven days after the injection. When I

read that the day of the burial would be announced later, I knew it boded evil.

" Meanwhile, General Buturlin arrived and demanded a post-mortem. O'Brien de Lacy supported the demand, convinced that the examination would be fruitless. I, too, was of the same opinion, because throats are never analysed during such investigations, and few symptoms of diphtheria infection would be visible in the throat."

That is Dr. Panchenko's last definitive story, to which he added that Muraviova was innocent, having had no inkling of his crime. Muraviova herself asseverated her innocence, affirming that her relations with Panchenko were pure. She accepted material help from him, but deprecated the luxury in which he maintained her. He, however, assured her that he would soon inherit a large sum.

The trial of the prisoners began in Petrograd at the end of January 1911, and excited intense public interest. Bobroff, the book-keeper, who gave away the secret to the Chief of Police, was first examined and adhered to his original story. A servant of the Buturlins related how Dr. Panchenko visited Buturlin for the first time, saying, " Let's get the treatment over before your wife returns." After that he came twice daily until the fourth day, when the patient fell ill. When his condition grew serious, Buturlin sent for the doctor, but Panchenko was not to be found. A chance physician had to be summoned, but produced no improvement. Nose-bleeding, vomiting, and sharp pains ushered in the agony, during which the dying man said, " Three months long they were at me to have the injections, but I refused as though I had a presentiment of what was coming."

The Court asked the experts to answer the question, " What caused Buturlin's death ? " and asked them to bear in mind Panchenko's admission that he had injected diphtheria toxin, when he made the following statement :—

" On May 16 I visited Buturlin, and injected a pure drug from a phial. I repeated the injection on the following day. Before my evening visit to Buturlin on the same day I broke the necks of the two drug-phials in my own lodging that nobody should notice it. Having emptied the contents, I filled the phials with diphtheria poison by means of a paper funnel,

plugged them with wadding, and, putting them into my waistcoat-pocket, set out for Buturlin's. Before starting I gulped down vodka for courage.

"I got to Buturlin's about eight or nine in the evening, with trembling in my legs and throbbing waves of darkness filling my eyes and fitfully blotting out my sight I had been wont to break off the necks of the phials in Buturlin's presence, first putting them in a handkerchief to avoid cutting my fingers. That is why he could not notice that this time the necks were already snapped off. I made two incisions in Buturlin's body, injecting each time the contents of one phial of the diphtheria poison. Each vessel held about two cubic centimetres, but as the effects of the diphtheria poison had not been tested on human beings, I injected two phials full in order to be quite sure of a deadly issue. As soon as I had finished the business my face was ghastly, and I quivered in every limb. I was in dread that Buturlin might discern my state. Pulling myself together, and mastering my failing voice, I asked him whether it hurt. He answered, 'Not at all.' I then left for home, and threw the phials into the street. The livelong night I could not close an eye. Conscience-ache racked me ruthlessly."

Panchenko's career, as revealed at the trial, certainly shows him to be one of the most diabolical characters ever connected with medicine and possibly the worst ever known.

He was sent by the Red Cross Society to Harbin during the War, and was then dismissed for irregularities, after which he introduced himself to the then Premier as a schoolmate of the Premier's brother, and received an appointment as physician to a railway company.

One witness recounted how a certain banker resolved to poison his own uncle, and had recourse to Panchenko, who initiated his friend Dreyden in the scheme. The latter used the information as a lever to extort blackmail, but the police, being hand in glove with the banker, sent Dreyden away.

Panchenko next edited a periodical entitled *Life's Mysteries*, which was suppressed. Despatched to Paris for the purpose of advertising a certain drug, Panchenko met a Russian officer bound for Abyssinia, who asked him for a potent poison for suicidal purposes in case he should be taken prisoner there. For forty francs Panchenko furnished prussic acid, and the

officer swallowed it and died. Panchenko now assured the Court that what he supplied was not poison, but only magnesia, and that in any case he had confessed since to a Russian priest in Paris, who comforted him by saying, "The officer would have committed suicide anyhow, my son."

To another witness Panchenko propounded a plan for coming into a heritage of two million roubles by "removing" two persons who stood in the way.

Circumstantial evidence was next offered by experts in the culture of various toxins. Dr. Heinrich, assistant director of the laboratory of plague cultures, spoke of Dr. Panchenko visiting the laboratories, requesting cholera endotoxin, and excusing himself from the obligation of writing his name in the visitors' book on the ground of haste. Dr. Panchenko received two tubes of endotoxin. One had a label that a dose is mortal for certain animals. Some months later Dr. Panchenko revisited the laboratory, and asked for more cholera endotoxin. Dr. Heinrich gave it, but warned him of its deadly effects.

Dr. Panchenko informed the Court that he gave this liquid to O'Brien de Lacy for twenty-five roubles.

Professor Zabolotny explained the nature of the effects of various cultures, and deposed that he gave diphtheria toxin to Dr. Panchenko, whose object was stated to be the study of its action on the nervous system.

A professor, named Zdrjekoffsky, of the Institute of Experimental Medicine, deposed that Dr. Panchenko, early last year, had asked him for diphtheria toxin.

"I gave him, I forget whether one or two phials of diphtheria toxin, each containing thirty or forty cubic centimetres. I explained to Dr. Panchenko the action of this toxin and the minimum dose that would cause death."

A criminal called Logatcheff, with whom Panchenko had shared a cell, and who was escorted to court by two soldiers, deposed that Panchenko had repeated to him in gaol the whole story of how he had poisoned Captain Buturlin. He said De Lacy had offered him 550,000 roubles to poison Captain Buturlin and the latter's father, General Buturlin, and mother, and told him he went to Kronstadt, to the Zabolotny Institute of Experimental Medicine to obtain toxins.

Pancheńko had described experiments which he had made on a guinea-pig at an hotel, adding that he afterwards threw the body into the street.

De Lacy, while denying that he married for money, made the following statement: "It is true that at one time I was afraid that the general would dispose of his fortune in his will in such a manner that my wife would receive only a fourteenth part. I certainly thought this unjust, but I reasoned as follows: The general is sure to live for a long time, and three years will suffice for me to induce him to enter into all my undertakings, including that of the steamboats. Then his whole capital will be at my disposal."

Continuing, he said that he was not aware of the total amount, but he knew that a sum of £300,000 was deposited in foreign banks.

At the end of this remarkable case, after a trial which lasted nearly three weeks, O'Brien de Lacy and Dr. Panchenko were found guilty, the latter with extenuating circumstances. The woman Muraviova was acquitted. De Lacy was sentenced to penal servitude for life and Panchenko to fifteen years' penal servitude.

Another case of attempted murder with pathogenic organisms occurred about ten years ago, when a Hungarian artist was tried with attempting to murder his wife by means of typhoid and cholera germs. The cholera medium in his possession was found to have lost all activity by having been kept too long, while the typhoid culture, though quite a virulent one, failed to kill the victim. The discovery of his crime was made through his attempts to obtain cultures from a private laboratory and demanding virulent strains, but so far, cases of this kind have been extremely rare, and the risk of failure is so great that criminals so inclined are likely to think twice before venturing to attempt life by this method.

CHAPTER XXIV

POISON HABITS

Opium—Morphine—Chloroform—Ether—Chlorodyne—Cocaine

THERE is a very peculiar property attached to certain poisons, especially those possessing narcotic properties —that is, they are capable of forming the most enslaving habits known to mankind. Thousands of people to-day are enchained in the slavery of the poison habit in one form or another and very few are ever successful in wresting themselves free when once it has been contracted. The habit is often formed in a most insidious manner. It is usually begun by taking some narcotic drug to relieve pain or induce sleep. In a short time the original dose fails to produce the desired effect, it has to be increased, and afterwards still further increased, until the victim finds he cannot do without it, and an intense craving for the drug is created. By and by the stupefying action affects the brain, the moral character is sapped, and the unfortunate being is at last ready to do anything to obtain a supply of the drug that is now his master.

This is not an overdrawn picture, but one of which instances are constantly to be met with. The enslaving habit of alcohol, when once contracted, is too well known to need description. Opium probably comes next in the point of influence it exerts over its victims, and only a very small percentage ever free themselves from the habit when it is once contracted. In most instances, as stated, it is taken in the first place to relieve some severe pain, as instanced in De Quincey's case. He says, in his *Confessions of an Opium-Eater*: "It was not for the purpose of creating pleasure, but of mitigating pain in the severest degree, that I first began to use opium as an article of daily diet." Like others, he was compelled to increase the

dose gradually, until at last he consumed the enormous quantity of 320 grains of the drug a day. He graphically describes the struggle he first had to reduce the daily dose, and found that to a certain point it could be reduced with ease, but after that point, further reduction caused intense suffering. However, a crisis arrived, and he writes, "I saw that I must die if I continued the opium. I determined, therefore, if that should be required, to die in throwing it off. I apprehend at this time I was taking from 50 or 60 grains to 150 grains a day. My first task was to reduce it to 40, to 30, and as fast as I could to 12 grains. I triumphed; but think not my sufferings were ended. Think of me, as one, even when four months had passed, still agitated, writhing, throbbing, palpitating, shattered; and much perhaps in the situation of him who has been racked."

Other cases are commonly met with in this country, where opium-eaters take on an average from 60 to 80 grains of the drug a day. The smallest quantity which has proved fatal in the adult is 4½ grains; in other cases much larger quantities have been taken with impunity. Guy states that recovery once took place after no less than eight ounces of solid opium had been swallowed.

Morphine, the chief alkaloid of opium, is also abused by many, and is swallowed as well as used by hypodermic injection. Its action is very similar to that of opium. It has been recently stated on good authority that in Chicago—that city of hurrying men and restless women—over thirty-five thousand persons habitually take subcutaneous injections of morphine to save themselves from the pains and terrors of neuralgia, insomnia, and nervousness. Dr. Van Dyke has recently stated that "no country suffers more from the narcotic drug evil than the United States. It is estimated that there are more than 1,500,000 addicts, many of them boys and girls."

To a delicate woman one grain of this drug has proved fatal, yet, under the influence of habit, a young woman has been known to take from 15 to 20 grains daily. A man in a good position, and head of a large commercial house, contracted the habit of taking morphine from a prescription that had been given to him containing four grains of the drug. As the habit grew,

he would have the medicine prepared by four different chemists daily, and swallow the contents of each bottle for a dose, until he took on an average over 24 grains a day. This being put a stop to by his friends, he commenced to take chloroform, which he would purchase in small quantities until he had collected a bottleful, and then he would drink it, usually mixed with whisky. He eventually had to be placed under restraint.

A remarkable account of the sensations experienced when under the influence of morphine was recorded by Dr. Albert Herschmann who, after taking six grains of the drug, seated himself at his desk and wrote notes of his sensations as death approached, which were found afterwards.

"This morphine" he wrote, "has put me in a condition of absolute mental painlessness. It is now 7.17 p.m. and if I did not know that I had taken sufficient poison to warrant results, I could not notice it from my condition.

"Aside from fluttering heart action and contracted eye pupils, and moderate drowsiness, I feel no results.

"Still, I cannot make up my mind to swallow the cyanide, and have lit a cigar, awaiting further increase of drowsiness, and hope to be soon able to coax myself into the inevitable.

"7.42 p.m.—I am here yet, hesitating to take this cyanide. My thoughts become blurred from the morphine, and a sensation of supreme quietude reigns in me. If it was not for my beloved wife, who has just 'phoned, I would go on waiting, but I am afraid of too long a delay because a lapsing into unconsciousness might result in my being saved by medical assistance. Ten more minutes, and then the end by cyanide.

"I am in no manner kept in suspense—just pleasantly and curiously watching developments. Queerly enough, my only wish is that I had an additional handkerchief, so that I could dispose of the surplus perspiration, it being close and my skin clammy from the morphine effects."

Then the signature, "Dr. A. J. H."

Chloroform when swallowed is very similar in its effects to alcohol, from which it is in fact prepared. It first excites and then causes a condition of stupefaction, and although it does not injure the stomach tissues and the liver to the same extent as alcohol, the taking of it almost invariably ends in

death. Some of its victims drink the liquid diluted, and others inhale it.

A case of a well-educated man is recorded who acquired the habit of drinking chloroform. It was known to his friends, and he did not deny it, but no one saw him take it, until it was eventually discovered that he first secretly added it to his whisky bottle, then diluted this mixture with a small quantity of water and swallowed it at a draught. Its property seemed to accentuate the intoxicating power of the alcohol. Every effort was made to break him of the habit, without success, without avail, and he eventually poisoned himself.

Another case of chloroform-drinking occurred in the East End of London. The victim was a young chemist's assistant, who had been in the habit of taking the drug since he was fourteen years of age. According to his own admission, he did not at first take it to alleviate pain, but began it as an experiment before he had been in his first situation a month. He got beyond the control of his parents, who notified the chemists in the district, and when unable to obtain it there, he called on various medical men and endeavoured to obtain chloroform by false pretences. He was able to swallow considerable quantities, and it was stated that he took enough in an hour to kill six people.

One who was addicted to this terrible habit, states that he began by "inhaling a small quantity, which was followed by a perfectly delicious state of semi-unconsciousness in which one lost sight of all discomfort and all things external. But this state is very transient and passes rapidly. The quantity has to be increased and increased until existence becomes a perfect misery. The whole moral fibre and character is swiftly ruined. Nausea is constant, dyspepsia and kindred troubles follow; and the victim becomes haggard and thin. For the two hours of semi-unconsciousness induced in this way, twenty-two hours are spent in unimaginable misery."

The quantity of chloroform used by those accustomed to it in this way is said to be astonishing. One victim, a woman, is known to have bought sixteen ounces a day, and inhaled it from a blanket. Such a story sounds incredible, as a teaspoonful is sometimes sufficient to kill a strong person.

Some years ago the habit of taking ether became common,

especially in Ireland, Scotland and the eastern parts of England. Its action is similar to chloroform, but it is slower in its effect. It first produces exhilaration, and, as with chloroform, when swallowed mixed with whisky, produces intense excitement, amounting almost to mania. The habit, when formed, is almost more terrible than chloroform, and the victim has to resort to several doses a day.

Some years ago, in the North of Ireland, it was stated on good authority that the population of one large district were almost entirely ether drunkards. Its consumption has now greatly diminished, probably owing to the increase in price which occurred at the time of the war, which would put it out of the reach of many of its victims.

Chlorodyne, which generally contains both morphine and prussic acid in its composition, is also much abused, especially by women. Some women have been known to consume as much as two ounces a week of this preparation.

During the past few years the increase in the taking of cocaine has probably surpassed all other poison habits. Cocaine is an important alkaloid, prepared from the dried leaves of the *Erythroxylon Coca* and other varieties of the coca plant that grow in the northern parts of Peru and Bolivia. For a considerable period before the active principle was discovered, the leaves of the plant were much used by natives of these countries and travellers, who chewed them on account of their stimulating effect, much the same as tobacco, but it was not until 1860 that the active principle cocaine was discovered by Niemann.

Its chief use in medicine is as a local anæsthetic, especially for the eye. The discovery of this valuable property was due to Eckstein, who, in 1870, pointed out that the most delicate operations could be performed painlessly on the eye after its injection.

The effect of cocaine taken by inhalation, injection or by the mouth unfortunately became too well known. At one time it was largely used as an ingredient in the preparations, used like snuff, commonly recommended and sold for influenza colds. The habit, once induced, led to the use of stronger preparations, until the victim found he had become enchained by a habit that enslaved him to such an extent it would seem impossible

to break. More subtle than other poisons, cocaine appears to sap completely the moral strength of its victims. Slowly and surely it deadens the sensibilities until death is sought as a relief in the end.

During the past few years, and since the beginning of the war, the consumption of cocaine in one form or another has enormously increased in both the Eastern and Western hemispheres. Recent cases that have been brought to light in the police courts, show only too plainly the terrible condition to which the victims of this habit are reduced. The cocaine habit may be compared to a human being gradually enclosed in the coils of a serpent, that slowly winds itself round the body with increasing pressure, to the terror of its victim, until it reaches a vital part, which ends in death.

Rarely is there any permanent breaking of the coil when once it starts. In most cases the simple inhalation is the beginning, and in the case of this poison it is not used as much to relieve pain as for the pleasurable sensation that is produced. From inhalation, the victim of the habit, finding the effects weaken, passes to the hypodermic injection, which is more rapid and more powerful in its action. As the coils of the serpent tighten, all moral sense and character seem gradually blotted out, and the whole individual physiologically is altered.

Fatalities have resulted from inhaling cocaine through the nose as well as by injecting it under the skin, and when it is stated that three-quarters of a grain has been known to cause death it can readily be imagined how easily a lethal dose can be taken.

The subtlety of the habit lies in its very simplicity. Exhilaration follows much more rapidly than after alcohol and is followed just as speedily by the deepest depression.

To such an extent has the cocaine habit increased, that recently the Government found it necessary to introduce fresh legislation dealing with the traffic in poisonous narcotic drugs, and the " Dangerous Drugs Act " was passed, and became law in 1920. Stringent though this statute is, it has not stopped the traffic in cocaine and opium. A great amount of smuggling and illicit traffic in the drug is carried on in the underworld of London, Paris and New York, and though the drug is costly,

a ready market is found for it. This traffic has been found rife in certain clubs of a low class, conducted by unscrupulous men whose precautions as to secrecy have been ingeniously conceived. The greatest cunning has been exercised in bringing it from the Continent, where it is chiefly manufactured, into Great Britain. A hollow cane containing a glass phial, which, when concealed by a screwed silver top looked like an ordinary walking-stick, was one method discovered a short time ago. Another and still more artful device was discovered by the Custom-House authorities on the landing of a passenger at an East Coast port. As his appearance aroused suspicion a search was made, and he was found to be wearing a truss, the bulb end of which was hollow and filled with cocaine.

In another case, where a man was arrested in the West End and charged with being in possession of nearly five ounces of cocaine, it was found that he had brought the drug from Germany, and concealed it in cavities he had skilfully cut out in the heels of his shoes, and had afterwards covered with leather.

During the war, which increased the nervous tension of the individual to a hitherto unknown degree, thousands of Canadian and American troops passed through London on their way to and from the fighting fronts, and many of the men provided potential victims for the trafficker in poisons. Many of these men who fell into bad hands were drugged with opium in the form of cigarettes and then robbed.

In proof of this statement, on July 19, 1916, seven men were charged at Marlborough Street Police Court with being concerned in selling cocaine to soldiers. The prosecuting solicitor for the Commissioner of Police said that the evil had grown to such dimensions in London that it was necessary for steps to be taken to check it. The use of cocaine in this country had increased enormously, and the habit appeared to have been brought here with soldiers from across the seas. Since the war began it had been sold in the streets in small boxes each containing a grain ; it was offered to soldiers in particular, who were told to use it like ordinary snuff on account of its exhilarating effect. The habit grew and grew till it produced symptoms of intoxication, the moral and

physical senses were clouded, and insanity and death resulted. The number of persons engaged in this abominable traffic was very large. The case having been proved against the men by several members of the Military Police, they were sentenced to various terms of imprisonment.

The efforts of the police to stop the traffic revealed the existence of what is practically an organization for the sale of the drug. The chief agents are men, mostly of foreign nationality and the worst possible type. They sell it, often adulterated with boric acid in small quantities, at enormous profit. Women sell it to other women, one acting as a carrier, being in the possession of a number of boxes of the drug, and the other undertaking actually to sell it in single boxes. The price of cocaine sold illegally in the West End of London a year or two ago was at the rate of £10 an ounce, and as it became more difficult to get, owing to the restrictions, the price increased. A bottle containing two and a half ounces was said to have been sold for £100.

In the autumn of 1922 there arrived at Hong-Kong a Japanese steamer, which was boarded by Revenue officers. A passenger who was a Japanese subject was arrested, and a quantity of his belongings, which included four cases of furniture, were seized. On examining the furniture, consisting of two sofas and four arm-chairs, which were cut open, there was found hidden in the upholstery 2,400 ounces of morphine and 2,500 ounces of cocaine. The quantity of morphine concealed in the furniture would provide 2,100,000 maximum doses, according to the *British Pharmacopœia*, and the quantity of cocaine was equal to 4,375,000 doses.

Legislation can play its part, but it will never eradicate the traffic until the supply is stopped at its source. So far as we know, Germany and Switzerland are the chief sources of origin. Nearly all the cocaine sold in London is smuggled into this country either by Chinese or foreigners, and it is stated that before it gets into the hands of the actual victim, quite a number of persons have made substantial profits out of it. In most cases it has been traced to Limehouse and the region of the London Docks or other seaports, where Continental steamers land, on the East Coast, and latterly to some of the big seaports like Cardiff and Newcastle.

These narcotics are rarely alluded to by those who traffic in them by their proper names. As is well known, cocaine is generally alluded to as "snow" or "C"; heroin is "H"; opium is alluded to as "Chandoo" or "Pop."

Some young women conceive the idea that drug-taking renders them more mysterious and fascinating; indeed, vanity plays a considerable part with many at the beginning, and human curiosity impels the victim to go on. The beginner cannot conceive the after-effect. The entire moral character appears to be sapped and rendered inert, the victims sink down unknown to themselves to the lowest depths of depravity and degradation, all restraint is lost, and they become a prey to those who may use them for any evil purpose at will.

Confirmed drug-takers cannot be cured by persuasion, argument or attempted coercion, but they will have the drug or they will die, and the only way of dealing with them and preventing the drug habit, is to prevent its importation into the country.

Insomnia is a frequent cause of the formation of a poison habit, and for this purpose chloral hydrate is capable of producing more serious results than any other drug of its class. The fact that it accumulates in the system, and that the dose needs constantly to be increased, always renders its use dangerous in unskilled hands. Many gifted men have fallen victims to the habit, among others Dante Rossetti, who seldom was without a bottle of the narcotic near him. Latterly, sulphonal and veronal, drugs derived from coal tar, possessing hypnotic properties, have been largely taken; and antipyrine, also a popular remedy for headache, is capable of forming a pernicious and dangerous habit. The practice of self-dosing with drugs of this description cannot be too strongly deprecated. In all cases they should only be taken when ordered by a medical man.

Some people form a curious habit of taking one drug till at last they become imbued with the idea that that only, and nothing else, will have any effect on them. The only remedy Thomas Carlyle would ever take, according to the late Sir Richard Quain, who was his medical adviser, was "Grey Powder." "Grey Powder," he states, "was his favourite remedy when he had that wretched dyspepsia from which he suffered, and which

was fully accounted for by the fact that he was particularly fond of very nasty gingerbread. Many times I have seen him, sitting in the chimney corner, smoking a clay pipe and eating this gingerbread." Oliver Goldsmith also laboured under the confirmed belief that the only medicine that would have any effect on him was "James' Powder." He doctored himself with this favourite nostrum whenever he felt unwell, and believed it to be a cure for all his ills.

CHAPTER XXV

HASHISH AND HASHISH-EATERS

HASHISH, or Bhang, is the native name applied to the dried flowering tops of the Indian hemp, from which the resin has not been removed.

This plant, cultivated largely in India, is now considered to be the same, botanically, as the *Cannabis sativa* of European cultivation; but there is great difference in their medicinal activity, that growing in India being much more powerful. Ganja is the native name for one part of the plant, and Sidhi for another part, which is much poorer in resin. The resinous principle is called *churrus* or *charas*, and the entire plant, cut during inflorescence, dried in the sun and pressed into bundles, is called *bhang*.

The method of using it in India is chiefly for smoking in combination with tobacco. For this purpose, a plug of tobacco is first placed at the bottom of the bowl of the pipe, on the top a small piece of hashish, and over this a piece of glowing charcoal. Another way is to knead the drug with the tobacco by the thumb of one hand and working it in the palm of the other, till they are thoroughly incorporated.

In India both ganja and churrus are used for smoking, but not bhang or sidhi. In India the habit of smoking ganja becomes part of a man's life. Under ordinary circumstances he has his smoke daily when his day's labour is over, and during the interval when he cooks his evening meal. Under extra-ordinary circumstances he takes it to sustain him in the midst of severe or prolonged exertion. It does not (as in opium smoking) affect his appetite, but enables the poorest to partake with a heartier appetite of their somewhat uninviting fare. It does not affect the digestion or interfere in the slightest degree with bodily or mental health, and the habit does not

grow on the votary. Ganja-smoking appears to be only injurious when indulged in to excess by those who lead sedentary lives.

Simple infusions of the leaves and flowering tops are also much used for drinking purposes by old and young in India, the alcoholic form being a most active and dangerous intoxicant.

The drug is said to have been used in China as early as the year 220, to produce insensibility when performing operations. The Persians employed it in the Middle Ages for the purpose of exciting the pugnacity and fanaticism of the soldiers during the wars of the Crusades.

In 1803 Visey, a French scientist, published a memoir on hashish, and attempted to prove that it was the nepenthe of Homer; there is little doubt, however, that the use of the drug was known to Galen.

Silvestin de Lacy contends that the word assassin is derived from "hashishin," a name given to a wild sect of Mohammedans who committed murder under its influence.

The Chinese herbal, *Rh-ya*, which dates from about the fifth century B.C., notices the fact that the hemp plant is of two kinds, the one producing seeds and the other flowers only. Herodotus states that hemp grows in Scythia both wild and cultivated, and that the Thracians made garments from it which can hardly be distinguished from linen. He also describes "how the Scythians exposed themselves as in a bath" to the vapour of the seeds thrown on hot coals.

The hemp occurs in several forms and is known under various names. Bhang consists of the entire plant dried and mixed with a few fruits and is of a dark green colour. It has a peculiar odour but little taste. Mixed with flour or incorporated with sweetmeat it is called hashish. It is also smoked or taken infused in cold water. Ganja consists exclusively of the flowering shoots of the female plant, having a compound or glutinous appearance, and is brownish-green in colour. Majún is a term applied to a sweetmeat or confection, of which Indian hemp is the basis, but it may contain nux vomica, opium, cantharides, or frequently datura seeds, according to the purpose for which it is intended, whether as an aphrodisiac or a criminal excitant or deliriant.

Of the many curious experiences that have been written describing the effects of hashish, perhaps the most accurate is that given by Gautier, in which he relates his own experience of the drug.

"The Orientalists," he states, "have, in consequence of the interdiction of wine, sought that species of excitement which the Western nations derive from alcoholic drinks." He then proceeds to state how a few minutes after swallowing some of the preparation, a sudden overwhelming sensation took possession of him. It appeared to him that his body was dissolved, and that he had become transparent. He clearly saw in his stomach the hashish he had swallowed, under the form of an emerald, from which a thousand little sparks issued. His eyelashes were lengthened indefinitely, and rolled like threads of gold around ivory balls, which turned with inconceivable rapidity. Around him were sparklings of precious stones of all colours, changes eternally produced, like the play of a kaleidoscope. He every now and then saw his friends who were around him disfigured as half men, half plants, some having the wings of the ostrich, which they were constantly shaking. So strange were these that he burst into fits of laughter, and, to join in the apparent ridiculousness of the affair, he began by throwing the cushions in the air, catching and turning them with the rapidity of an Indian juggler. One gentleman spoke to him in Italian, which the hashish transposed into Spanish. After a few minutes he recovered his habitual calmness, without any bad effect, and only with feelings of astonishment at what had passed. Half an hour had scarcely elapsed before he again fell under the influence of the drug. On this occasion the vision was more complicated and extraordinary. In the air there were millions of butterflies, confusedly luminous, shaking their wings like fans. Gigantic flowers, with chalices of crystal; large peonies upon beds of gold and silver rose and surrounded him with the crackling sound that accompanies the explosion in the air of fireworks. His hearing had acquired new power; it was enormously developed. He heard the noise of colours. Green, red, blue, yellow sounds reached him in waves—a glass thrown down, the creaking of a sofa, a word pronounced low, vibrated and rolled within him like

peals of thunder. His own voice sounded so loud that he feared to speak lest he should knock down the walls or explode like a rocket. More than five hundred clocks struck the hour with fleeting silvery voice, and every object touched gave a note like the harmonica or the Æolian harp. He swam in an ocean of sound, where floated like aisles of light some of the airs of "Lucia di Lammermoor" and the "Barber of Seville." Never did similar bliss overwhelm him with its waves; he was lost in a wilderness of sweets; he was not himself; he was relieved from consciousness, that feeling which always pervades the mind; and for the first time he comprehended what might be the state of elementary beings, of angels, of souls separated from the body. All his system seemed infected with the fantastic colouring in which he was plunged. Sounds, perfume, light, reached him only by minute rays, in the midst of which he heard mystic currents whistling along. According to his calculation, this state lasted about three hundred years, for the sensations were so numerous and so hurried one upon the other, that a real appreciation of time was impossible. The paroxysm over, he was aware that it had only lasted a *quarter of an hour.*

Another interesting account of the strange hallucinations produced by the drug is related by Dr. Moreau, who, with two friends, experimented with hashish.

"At first," he states "I thought my companions were less influenced by the drug than myself. Then, as the effect, I fancied that the person who brought me the dose had given me some of more active quality. This, I thought to myself, was an imprudence and the involuntary idea presented itself that I might be poisoned. The idea became fixed; I called out loudly to Dr. Roche, 'You are an assassin; you have poisoned me!' This was received with shouts of laughter, and my lamentations excited mirth. I struggled for some time against the thought, but the greater the effort the more completely did it overcome me, till at last it took full possession of my mind. The extravagant conviction now came uppermost that I was dead, and upon the point of being buried; my soul had left my body. In a few minutes I had gone through all the stages of delirium."

These fixed ideas and erroneous convictions are apt to be

produced, but they only last a few seconds, unless there is any physical disorder.

"The Orientalist, when he indulges in hashish retires into the depth of his harem; no one is then admitted who cannot contribute to his enjoyment. He surrounds himself with his dancing girls, who perform their graceful evolutions before him to the sound of music; gradually a new condition of the brain allows a series of illusions, arising from the external senses, to present themselves. The mind becomes overpowered by the brilliancy of gorgeous visions; discrimination, comparison, reason, yield up their throne to dreams and phantoms which exhilarate and delight.

"The mind tries to understand what is the cause of the new delight, but it is in vain. It seems to know there is no reality."

Hardly two people experience the same results from hashish. Upon some it has little effect, while upon others, especially women, it exerts extraordinary power, While one person says he imagined his body endowed with such elasticity that he fancied he could enter into a bottle and remain there at his ease, another fancied he had become the piston of a steam engine; under the influence of the drug the ear lends itself more to the illusion than any other sense. Its first effect is one of intense exhilaration, almost amounting to delirium; power of thought is soon lost, and the victim laughs, cries and sings or dances, all the time imagining he is acting rationally. The second stage is one of dreamy enjoyment followed by a dead stupor.

Of the ordinary physical effects of hashish, the first is a feeling of slight compression of the temporal bones and upper parts of the head. The respiration is gentle, the pulse is increased, and a gentle heat is felt all over the surface of the body. There is a sense of weight about the fore part of the arms, and an occasional slight involuntary motion, as if to seek relief from it. There is a feeling of discomfort about the extremities, creating a feeling of uneasiness, and if the dose has been too large the usual symptoms of poisoning by Indian hemp show themselves. Flushes of heat seem to ascend to the head, even to the brain, which create considerable alarm.

Singing in the ears is complained of; then comes on a state of anxiety, almost of anguish, with a sense of constriction about the chest. The individual fancies he hears the beating of his heart with unaccustomed loudness; but throughout the whole period it is the nervous system that is affected, and in this way the drug differs materially from opium, whose action on the muscular and digestive systems is most marked.

It is a remarkable fact that Indian hemp fails to produce the same intoxicating effects in this country that it does in warmer climates, and whether this is due to the loss of some volatile principle or difference in temperature it is not yet determined. But would-be experimentalists in the effects of hashish would do well to remember that it may not be indulged in with impunity, and most authorities agree that the brain becomes eventually disordered with frequent indulgence in the drug even in India. It further becomes weakened and incapable of separating the true from the false; frequent intoxication leads to a condition of delirium, and usually of a dangerous nature; the moral nature becomes numbed, and the victim at last becomes unfit to pursue his ordinary avocation. It is stated by those who have had considerable experience in its use, that even during the dream of joy there is a consciousness that all is illusion; there is at no period a belief that anything that dances before the senses or plays upon the imagination is real, and that when the mind recovers its equilibrium it knows that all is but a phantasm.

CHAPTER XXVI

POISONS IN FICTION

POISON mysteries have ever been a favourite theme with writers of fiction ; but unfortunately the scientific knowledge of novelists is as a rule of a very limited description, and the effects attributed by them to certain drugs are often as fabulous as the romances of olden times. They tell us of mysterious poisons of untold power, an infinitesimal quantity of which will cause instantaneous death without leaving a trace behind. They describe anæsthetics so powerful that a whiff from a bottle is sufficient to produce immediate insensibility for any period desired. In fact, novelists have a pharmacopœia of their own. After all, why should we question the effects of the drugs of their imagination, and attempt to analyse them in the prosaic test tube of modern science ; for take away the marvels and the mysteries and you kill the romance. The novel performs its mission if it succeeds in interesting and amusing us, and the story-teller has accomplished the object of his art when he is successful in weaving the possible with the impossible, so that we can scarce perceive it.

That master of fiction, Dumas, gives us an instance of this in his ever-fascinating adventures of the *Count of Monte Cristo.* Nothing seems impossible to this extraordinary individual, and incident after incident of the most romantic nature crowd one upon another throughout the story ; yet it is all so beautifully blended by the wonderful imagination of the author that it enthrals us to the end. The Count, who is supposed to have studied the art of medicine in the East, has always a remedy at hand for every emergency, from hashish, in which he is a profound believer, to his mysterious stimulating elixir, described as " of the colour of blood,

preserved in a phial of Bohemian glass." A single drop of this marvellous fluid, if allowed to fall on the lips, will, almost before it reaches them, restore the marble and inanimate form to life. His pill-boxes were composed of emeralds and precious stones of huge size, and their contents consisted of drugs whose effects were beyond conception. His knowledge of chemistry and toxicology is equally astonishing, as instanced in the conversation he holds with Madame de Villefort, who, for nefarious purposes, desires to improve her knowledge of poisons. Monte Cristo discourses on the poisonous properties of brucine, a drug rarely used in England, but largely employed in France.

"Suppose," says the Count, "you were to take a millegramme of this poison the first day, two millegrammes the second day, and so on. Well, at the end of ten days you would have taken a centigramme: at the end of twenty days, increasing another millegramme, you would have taken three hundred centigrammes; that is to say, a dose you would support without inconvenience, and which would be very dangerous for any other person who had not taken the same precautions as yourself. Well then, at the end of the month, when drinking water from the same carafe, you would kill the person who had drunk this water, without your perceiving otherwise than from slight inconvenience that there was any poisonous substance mingled with the water."

The Count thus explains the doctrine of immunity from a poison, by accustoming the system to its effect in small doses for a length of time, a process which is actually possible with some drugs, but not with all, His satirical description of the bungling of the common poisoner, as compared to the fine subtlety and cunning he advocates, is also worth quoting:

"Amongst us a simpleton, possessed by the demon of hate or cupidity, who has an enemy to destroy, or some near relation to dispose of, goes straight to the grocer's or druggist's, gives a false name, which leads more easily to his detection than his real one, and purchases, under a pretext that the rats prevent him from sleeping, five or six pennyworth of arsenic. If he is really a cunning fellow he goes to five or six different druggists or grocers, and thereby becomes only five or six times more easily traced; then, when he has acquired his

specific, he administers duly to his enemy or near kinsman a dose of arsenic which would make a mammoth or mastodon burst, and which, without rhyme or reason, makes his victim utter groans which alarm the whole neighbourhood. Then arrive a crowd of policemen and constables. They fetch a doctor, who opens the dead body, and collects from the entrails and stomach a quantity of arsenic in a spoon. Next day a hundred newspapers relate the fact, with the names of the victim and the murderer. The same evening the grocer or grocers, druggist or druggists, come and say : 'It was I sold the arsenic to the gentleman accused,' and rather than not recognize the guilty purchaser, they will recognize twenty. Then the foolish criminal is taken, imprisoned, interrogated, confronted, confounded, condemned, and cut off by hemp or steel ; or, if she be a woman of any consideration, they lock her up for life. This is the way in which you northerners understand chemistry."

And so he endeavours to incite a woman, who is already anxiously contemplating a series of terrible crimes.

The recital of the ingenious experiments of the Abbé Adelmonte is a piece of clever construction, as the quotation will show.

"The Abbé," said Monte Cristo, "had a remarkably fine garden full of vegetables, flowers and fruit. From among these vegetables he selected the most simple—a cabbage, for instance. For three days he watered this cabbage with a distillation of arsenic ; on the third, the cabbage began to droop and turn yellow. At that moment he cut it. In the eyes of everybody it seemed fit for table, and preserved its wholesome appearance. It was only poisoned to the Abbé Adelmonte. He then took the cabbage to the room where he had rabbits, for the Abbé Adelmonte had a collection of rabbits, cats and guinea-pigs, equally fine as his collection of vegetables, flowers, and fruit. Well, the Abbé Adelmonte took a rabbit and made it eat a leaf out of the cabbage. The rabbit died. What magistrate would find or even venture to insinuate anything against this ? What *procureur du roi* has ever ventured to draw up an accusation against M. Majendie or M. Flourens, in consequence of the rabbits, cats and guinea-pigs they have killed. Not one. So, then, the rabbit dies, and justice takes no notice. This rabbit dead, the Abbé Adelmonte has its entrails taken out by his cook and

thrown on the dunghill; on this dunghill was a hen, who, pecking these intestines, was, in her turn, taken ill, and dies next day. At the moment when she was struggling in the convulsions of death, a vulture was flying by (there are a good many vultures in Adelmonte's country); this bird darts on the dead bird and carries it away to a rock, where it dines off its prey. Three days afterwards this poor vulture, who has been very much indisposed since that dinner, feels very giddy suddenly whilst flying aloft in the clouds, and falls heavily into a fish-pond. The pike, eels, and carp eat greedily always, as everybody knows—well, they feast on the vulture. Well, suppose the next day, one of these eels, or pike, or carp is served at your table, poisoned as they are to the third generation. Well then, your guest will be poisoned in the fifth generation, and die at the end of eight or ten days, of pains in the intestines, sickness, or abscess of the pylorus. The doctors open the body, and say, with an air of profound learning, 'The subject has died of a tumour on the liver, or typhoid fever.'"

After attempting to kill half the household with brucine, Madame de Villefort changes her particular poison for a simple narcotic, recognized by Monte Cristo (who in this instance frustrates the murder) as being dissolved in alcohol. The name of the latter poison is not told us by the novelist, but on the doctor's examination of the suspected liquid we read, "He took from its silver case a small bottle of nitric acid, dropped a little of it into the liquor, which immediately changed to a blood-red colour."

Perhaps the most curious method of poisoning ever used in fiction is that introduced by James Payn in his novel called *Halves*. The poisoner uses finely chopped horsehair as a medium of getting rid of her niece. In this way she brings on a disease which puzzles the doctor, until one day he comes across the would-be murderess pulling the horsehair out of the drawing-room sofa, which causes him to suspect her at once. This ingenious lady introduced the chopped horsehair into the pepper pot used by her victim.

The inimitable Count Fosco, whom Wilkie Collins introduces into *The Woman in White*, was supposed to possess a remarkable knowledge of chemistry, although he says, "Only twice did I call my science to my aid," in working out his plot to abduct

Lady Glide. His media were simple: "A medicated glass of water and a medicated bottle of smelling salts relieved her of all further embarrassment and alarm." This genial villain waxes eloquent on the science of chemistry in his confession. "Chemistry," he exclaims, "has always had irresistible attractions for me from the enormous, the illimitable power which the knowledge of it confers. Chemists—I assert it emphatically—might sway, if they pleased, the destinies of humanity. Mind, they say, rules the world. But what rules the mind? The body (follow me closely here) lies at the mercy of the most omnipotent of all potentates—the chemist. Give me—Fosco—chemistry; and when Shakespeare has conceived Hamlet, and sits down to execute the conception—with a few grains of powder dropped into his daily food, I will reduce his mind, by the actions of his body, till his pen pours out the most abject drivel that has ever degraded paper. Under similar circumstances revive me the illustrious Newton. I guarantee that when he sees the apple fall he shall *eat it*, instead of discovering the principle of gravitation. Nero's dinner shall transform Nero into the mildest of men before he has done digesting it, and the morning draught of Alexander the Great shall make Alexander run for his life at the first sight of the enemy the same afternoon. On my sacred word of honour it is lucky for society that modern chemists are, by incomprehensible good fortune, the most harmless of mankind. The mass are worthy fathers of families, who keep shops. The few are philosophers besotted with admiration for the sound of their own lecturing voices, visionaries who waste their lives on fantastic impossibilities, or quacks whose ambition soars no higher than our corns."

In *Armadale* the same novelist introduces us to a poisoner of the deepest dye in the person of Miss Gwilt. This fair damsel, whose auburn locks seemed to have possessed an irresistible attraction for the opposite sex, was addicted to taking laudanum to soothe her troubled nerves, and first tried to mix a dose with some lemonade she had prepared for her husband's namesake and friend, whom she wished out of the way. This attempt failing, and a second one, to scuttle a yacht in which he was sailing, proving futile also, he was finally lured to a sanatorium in London where she had arranged

for him to be placed in a room into which a poisonous gas (presumably carbonic acid) was to be passed. At the last moment she discovers her husband has taken the place of her victim, and in revulsion of feeling she rescues him, and ends her own life instead in the poisoned chamber. According to the story, the medical investigation which followed the tragedy ended in discovering that she had died of apoplexy; a fact which, had it occurred in real life, would not have redounded to the credit of the medical men who conducted it.

The heroine of Benson's novel, *The Rubicon*, poisons herself with prussic acid of unheard-of strength, which she discovers *among some photographic chemicals.*

Miss Helen Mathers, in one of her novels, *The Sin of Hagar*, a story warranted to thrill the soul of "Sweet Seventeen," makes some extraordinary discoveries which will be new to chemists. For instance, she tells us of strychnine that actually *discolours* a glass of whisky and water. One of the characters, a frisky old dowager, professes to be an *amateur* chemist, and this lady, we are gravely informed by the novelist, "detects the presence of the strychnine in the glass of whisky and water *at a glance.*"

But Miss Mathers has still another poison, whose properties will doubtless be a revelation to scientists, and it is with this marvellous body the "double-dyed villainess" of the story puts an end to her woes. For convenience she carries it about with her concealed in a ring, and when at last she decides on committing suicide, we are told "she simply placed the ring to her lips, a strange odour spread through the room, and she instantly lay dead."

Even the experienced writer of sensational fiction may often go beyond the point of probability into impossibility when describing the use of poisons. In a story recently published, a well-known novelist describes a burglar who is caught by a policeman slipping out of a house in the night. A terrible struggle ensues, with the result that they rolled struggling into the gutter, the policeman shouting for assistance. The burglar's right hand flies to his jacket pocket, then swiftly to the face of his captor who almost instantly relaxes his hold and becomes unconscious. It is revealed afterwards that the prisoner had smashed in his fingers a

small capsule which released an asphyxiating gas; this must indeed have been of great potency to be enclosed in a capsule to be held between the fingers and render an individual insensible in a few seconds. The effect of the gas, too, must have been terrible, as we are told that the constable remained asleep in the front garden till eight o'clock in the morning. The nearest policeman was unable to move him, but he had to be removed in an ambulance and when brought to the station was thought to be intoxicated until the divisional sergeant pronounced that *he had been gassed*.

Certainly, the novelist has exceeded the scientist in producing a gas that would have proved invaluable during the Great War.

A final instance of the poison of fiction may be quoted from a recently published novel in which the heroine, a houri of the East, is abducted by a fierce renegade Englishman and carried off into the desert.

She escapes from him, however, by the aid of a wonderful ring she wears, described by the novelist as "a great hollow jewel of ancient gold set with a green diamond." It contained, we are told, "a poisonous drug of which two or three grains in coffee finished off the lady's abductor and drugged *fifty* others, and so she escaped."

On the stage, "poisoning" has gone somewhat out of fashion with modern dramatists, although it was a common thing in years gone by for the villain of the play to swallow a cup of cold poison in the last act, and after several dying speeches to fall suddenly flat on his back and die to slow music. The death of Cleopatra, described by Shakespeare as resulting from the bite of a venomous snake, is like no clinical description of the final effects of death from the bite of any known snake.

Beverley, in "The Gamester," takes a dose of strong poison in the fifth act, and afterwards makes several fairly long speeches before he apparently feels the effects, and finally succumbs. The description of the death of Juliet, which Shakespeare, in all probability, conceived from reading the effects that followed the drinking of morion or mandragora wine, is an accurate description of death from that drug. The use of this anodyne preparation to deaden pain dates

from ancient times, and it is stated it was a common practice for women to administer it to those about to suffer the penalty of the law by being crucified. We have another instance of the fabulous effects ascribed to poisons by the early playwrights, in Massinger's play, "The Duke of Milan." Francisco dusts over a plant some poisonous powder and hands it to Eugenia. Ludovico approaches, and kisses the lady's hand but twice, and then dies from the effects of the poison.

Sufficient eccentricities of this kind in fiction might be enumerated to fill a volume, but we must forbear. It is perhaps hardly necessary to state that the lady novelist is the greatest sinner in this respect, and that stranger poisons are evolved from her fertile brain than were ever known to man.

PART II

POISON MYSTERIES

CHAPTER I

THE MYSTERY OF LAWFORD HALL—THE STRANGE CASE OF ELIZABETH FENNING

IN the spring of the year 1780, the quiet hamlet of Little Lawford in Warwickshire, situated about three miles from Rugby, was the scene of a tragedy which aroused great interest not only in the immediate locality, but throughout the country.

At that time there lived at Lawford Hall Sir Theodosius Boughton, a young baronet who had not yet attained his majority, together with his mother, his only sister and her husband, Captain Donellan, a half-pay officer.

The career of the latter gentleman, who plays an important part in the story, had been an eventful one. In 1757 he was gazetted as a subaltern in the 39th Regiment, then stationed in Madras on foreign service. There he entered the East India Company's service and joined in an expedition against Masulipatam in 1758, and was wounded in action after the taking of that place. Trouble, however, arose over the question of certain loot that had been taken from the merchants; Donellan was court-martialled, sentenced to be discharged from the service, and returned to England.

On his return his ambition was to shine as a beau in society. Dress and gaming are said to have occupied his whole attention, and he eventually became Master of the Ceremonies at the Pantheon, in Oxford Street, London, then a fashionable resort for dancing much frequented by Society.

Here, it is probable, he met and wooed Miss Boughton, whom he married, and a year after the couple came to live at Lawford Hall with Lady Boughton. At this time young Sir Theodosius was finishing his education. After leaving Eton he had lived for a couple of years with a tutor, and then came home to Lawford to settle down with his family.

He was a young fellow of high spirits and fond of outdoor sports, but like other young men of his class at that time he was inclined to live a fast life, and this had told more or less upon his health.

From the time of his residence at home, for some reason or other, he did not get on well with his brother-in-law, Captain Donellan, and the latter appears to have adopted a patronizing attitude towards the young man while living in his house. According to his father's will Sir Theodosius did not come into his property, which was worth about £2,000 a year, until he was twenty-one, and meanwhile he was under the guardianship of Sir Edmund Wheeler, an old friend who lived eight miles away from Lawford. According to the will, should he die before attaining his majority, his sister, Mrs. Donellan, was to benefit largely from the estate.

Matters had gone thus for nearly two years when Sir Theodosius, as the result of his former gay life, became unwell and placed himself under the care of an apothecary in Rugby.

Donellan, who became aware of this, talked a good deal to various friends, remarking that the young man was ruining his health, that his life was not worth a year's purchase, and that he could not possibly live if he did not take more care.

The young baronet, however, appeared in good health and spirits, but the conditions of life became so unpleasant at the Hall that he at length decided to go and stay with a friend in Northampton until he came of age.

About five o'clock on a Tuesday afternoon, August 29, 1780, Sir Theodosius, accompanied by several of his menservants, set off down to the river on a fishing expedition. During his absence a dose of medicine in the form of a draught was delivered at the Hall from Mr. Powell, the apothecary, which was to be taken by the young man the first thing on the following morning. The bottle was taken upstairs and placed on a shelf in his bedroom. Soon after Sir Theodosius had set out, his mother, Lady Boughton, and Mrs. Donellan went into the grounds to take the air and remained in the garden some hours. About seven o'clock they were joined in their walk by Captain Donellan, who remarked that he had been fishing with Sir Theodosius, and that he was afraid if he stayed out so long in the damp he would take cold. Sir

Theodosius, however, returned home all right, somewhat later and, after having supper, retired to bed.

At six in the morning a servant called him, and he got out of bed and spoke to him. An hour later his mother went into his bedroom to remind him about taking his medicine. He asked her to give it to him, and she, taking it from the shelf, poured the contents into a cup and gave it to him. He swallowed about half and complained that it tasted so nauseous he would be unable to retain it. He handed the cup back to his mother who smelt it and was struck with the powerful smell of bitter almonds, but gave it back to him again. Sir Theodosius then swallowed the remainder and lay down, but in a few minutes he was taken very ill with vomiting. On his becoming more composed Lady Boughton left him for about ten minutes, thinking he would sleep. On returning to his room she found him collapsed and foaming at the mouth. Struck with alarm at his condition she sent a servant for the apothecary and to call Captain Donellan. The latter came in a few minutes, and on his entering the room Lady Boughton exclaimed: "Here is a terrible affair, I have given my son something that was wrong instead of what the apothecary sent. I am sure it would have killed a dog." Donellan replied, "Why the devil did Mr. Powell send such a medicine? Where is the bottle?" Lady Boughton pointed to it on the mantelpiece and Donellan at once took it up, poured some water into it, shook and rinsed it and emptied the contents into a basin of dirty water standing near.

Astonished at his action Lady Boughton said, "Good God, what are you doing? Let everything remain just in the same place until Mr. Powell the apothecary arrives." Donellan made no reply, but took an empty phial which had contained a previous draught which was also standing on the same shelf and rinsed that out in the same way, then, calling a servant, ordered her to take the basin away, in spite of Lady Boughton's remonstrance.

Meanwhile Sir Theodosius lay dying, and expired in about thirty minutes.

Some time elapsed before Mr. Powell arrived, and he was taken up to the room by Donellan, who explained to him that Sir Theodosius had been out late fishing the previous night,

and had no doubt taken cold, which had caused his death. He made no mention of the effect of the draught, but told him the young man had died in convulsions. The apothecary apparently offered no solution as to the cause of death and left the house.

The same morning that Sir Theodosius died Donellan wrote to Sir William Wheeler, his guardian, informing him of his death, and stating that he had been under the care of Mr. Powell, of Rugby, for a similar complaint to that which he had had at Eton. Within a day or two, however, rumours of foul play became current and Sir William Wheeler communicated these to Donellan and insisted that to allay public suspicion a post-mortem examination should be made. He named a Dr. Rattray and two surgeons, Messrs. Wilmer and Snow, whom he desired to conduct the examination. These gentlemen were accordingly sent for and arrived at Lawford Hall on Monday evening, September 4. They were received by Captain Donellan, who, after some conversation, showed them to the room. The body of the unfortunate young man being in an advanced state of decomposition, the doctors showed reluctance to proceed with the autopsy, and after a cursory examination they left the Hall without coming to any satisfactory conclusion, nothing having been said to them by Donellan of any suspicion of foul play.

Donellan then wrote to Sir William Wheeler stating that the doctors had fully satisfied the family, but Sir William was still dissatisfied, and on hearing that no actual post-mortem had been made, insisted that two other surgeons, viz. Messrs. Bucknell and Snow, should examine the remains. On their arrival, however, Donellan again circumvented their intentions and the body was duly interred. This increased the rumours instead of dispelling them, and eventually the coroner of the district was informed of the case and he decided to hold an inquiry.

The inquest lasted three days, and on the last day Donellan addressed a letter to the coroner in which he stated that Sir Theodosius used to procure arsenic to kill rats, and frequently bought as much as a pound at a time, also that he used to make large quantities of Goulard Water.

This was to account for the suspicion of poisoning which

was now rife. After hearing the evidence the coroner ordered that the body should be exhumed. On Saturday morning, September 9, the body was removed from the vault and placed in the churchyard. About five hundred people had collected to witness the gruesome sight, which in those days was conducted in public. When all was ready a Mr. Bucknill, a young surgeon, put on a wagoner's smock frock that had been dipped in vinegar, and with a napkin that had been soaked in vinegar tied over his mouth and nose, opened the body, which was duly inspected by the doctors present and reinterred.

As a result of the inquest Captain Donellan was arrested and charged with the wilful murder of his brother-in-law by poisoning him with arsenic.

The trial, which excited intense interest throughout the country on account of the social position of the persons involved, took place at the Warwick Assizes on March 30, 1781, before Mr. Justice Buller.

Six counsel, headed by Mr. Howarth, appeared for the Crown, and the prisoner was represented by Mr. Newnham and two juniors. The case mainly depended on the medical evidence, a review of which forms an interesting picture of the state of medicine and toxicology of the time.

The first witness was Mr. Powell, the apothecary, of Rugby, who was treating Sir Theodosius at the time of his death. He swore that the draught he sent the baronet was quite harmless and consisted of rhubarb and jalap, spirit of lavender, nutmeg water and simple syrup.

Dr. Rattray, of Coventry, the next medical witness, described the visit he paid to Lawford Hall at the wish of Sir William Wheeler with the other surgeons. The reason they did not proceed with the post-mortem, he stated, was that they thought it too late, and that so long after death nothing could be discovered. He was present when the body was opened in the churchyard, and from its appearance he was now of the opinion that poison was the cause of death.

Mr. Wilmer, a surgeon, described some experiments he had made with laurel water. He gave an ounce to a young greyhound and to his great surprise it died immediately. He next gave a pint and a half to a mare and in a few moments

she went into convulsions and died in fifteen minutes. He believed that an ounce of laurel water was enough to kill a strong man. Dr. Ash, a physician of Birmingham, next gave his opinion that the young man had died from the effects of poison.

Further medical evidence was given by Dr. Parsons, Professor of Anatomy at Oxford University. He stated he believed that Sir Theodosius had been poisoned by laurel water which had been given to him instead of the purgative draught.

Important evidence was given by a female servant named Mary Lines, who stated that Captain Donellan had a still, which he kept in his own room and which he used for distilling rose water.

A gardener at the Hall, named Amos, who was next called, said Captain Donellan brought the still to him two or three days after Sir Theodosius died. It was full of wet lime at the time and he asked him to clean it for him. He mentioned that the lime was used for killing fleas.

For the defence Mr. John Hunter, the famous surgeon, of London, was called to give evidence and said he had dissected some thousands of subjects. The symptoms he had heard described were not conclusive that the baronet had taken poison. He had never known in his practice of laurel water being given to a human being. From the description he had heard of the appearance of the body, he should not have drawn the inference that death had resulted from poison. Apoplexy or epilepsy would produce similar symptoms to those he had heard described, but he would not swear that the deceased man died a natural death.

The judge in summing up commented on the doubt Mr. Hunter seemed to have in giving evidence, and the failure of counsel to get from him a conclusive opinion. On the other hand five medical men were agreed that death had been due to the draught, and that the draught had been laurel water. How did the poison get into the medicine bottle? Why also did the prisoner rinse out the empty bottles and see they were taken away and destroyed in the face of the suspicious circumstances attending the death? The evidence concerning the still was also important, as it proved the prisoner had a know-

ledge of its use and he often used it for distilling rose and lavender waters. The deceptive way in which the prisoner had acted was also likely to arouse suspicions as well as his endeavour to prevent an examination of the body.

The jury after a few minutes' consideration found the prisoner "Guilty," and the judge pronounced sentence of death. The prisoner's body afterwards to be delivered to the surgeons and be dissected and anatomized. "The prisoner," says a contemporary writer, "neatly dressed in black, was driven in a coach to the gallows and was hanged."

Thus ended the brilliant Captain Donellan, the much envied beau of London Society in George the Third's time.

A strange case that happened early in the nineteenth century was that of Elizabeth Fenning.

On April 11, 1815, this girl, who was engaged as cook to a law stationer in Chancery Lane, was tried at the Old Bailey before the Recorder on a charge of having poisoned her employer, Mr. Olebar Turner, his wife and his father, Robert Gregson Turner. The girl, who was only twenty years of age, had been employed as cook in Mr. Turner's house for six weeks, and on March 21 had made some yeast dumplings for dinner.

The dumplings were brought to the table and partaken of by the three persons. A few minutes after eating a portion of one, Mrs. Turner was taken ill with violent pains and vomiting, and shortly afterwards the two men, who had also eaten of the dumplings, were seized with pains in the same manner. Mr. Marshall, a surgeon, was sent for several hours afterwards, and all three persons, after some time, recovered. The girl herself and a young apprentice in the house had also eaten of the dumplings and were affected in the same way.

Mr. Turner said he suspected arsenic had been put in the food and made a search next morning. In the kitchen he found a brown dish in which the dumplings had been mixed, with what appeared to be some remnants of the food still adhering to it. He put some water into the dish and stirred it, and found in a few minutes a white powder or sediment fell to the bottom, which he kept and handed to the surgeon.

He knew that arsenic was kept in a drawer in his office in

two wrappers labelled " Arsenick, Deadly Poison " and was used for killing mice. The drawer was always unlocked. He had last seen the packet of arsenic in the drawer on March 7, and it was now missing. He had noticed that the knives they had used to cut the dumplings had turned black.

He had charged the girl with putting something in the dumplings, and she had replied it was not in the dumplings but in the milk that was used to make them which had been brought to her by Sarah Peer, a fellow-servant. Mr. John Marshall, the surgeon who was called in, said he found the family suffering from symptoms that would be produced by arsenic, and the prisoner was also ill in the same way. He had examined the remnants found in the dish by Mr. Turner and washed them with a tea-kettle of warm water and then decanted it. He found half a teaspoonful of white powder left. After washing it a second time he found it was arsenic. Arsenic would turn the knives black. He had examined the remains of the yeast used and the flour employed in making the dumplings, but found no trace of arsenic.

The girl, in her defence, swore she was quite innocent of the whole charge.

The jury found her guilty and she was sentenced to death.

The result of the trial excited public interest in London, and caused an outburst of popular feeling, the general opinion being that the evidence was insufficient to prove the girl guilty. The Prince Regent was petitioned, also the Lord Chancellor and the Secretary of State, and several meetings of influential persons were held, agitating for a remission of the sentence. The girl, however, was executed at Newgate on July 26, 1815, exclaiming, " I die innocent, but God will convince you by a circumstance this day." In 1834 the man Turner died in the workhouse, but confessed before his death that he had put the arsenic into the dumplings and falsely sworn away the girl's life.

CHAPTER II

THE CASE OF MADAME LAFARGE

THE story of Madame Lafarge, who was tried in France for the murder of her husband in 1840, is a strange and romantic one.

Marie Fortunée Cappelle was the daughter of a captain in the Imperial Artillery. Her parents died during her childhood, and she was placed in the care of an aunt, who, at the earliest opportunity, determined to relieve herself of the burden of her support by negotiating a marriage for her. While still a girl, through the instrumentality of a matrimonial agent in Paris, an alliance was arranged between Marie Cappelle and one Monsieur Charles Lafarge, who was a widower and an ironmaster of Glandier.

The marriage, which was purely a commercial transaction, took place in Paris on August 15, 1839, after which Lafarge and his young wife set out for his old and gloomy seigneurial château at Glandier.

From statements made afterwards, Madame Lafarge became disgusted with her husband's brutality before the honeymoon was over. After they reached their own house, however, they were reconciled, and there seemed to be every possibility of their spending a happy wedded life together.

Besides the newly married pair, there lived in the château the mother and sister of Lafarge. His chief clerk, Denis Barbier, was a frequent visitor there, and was apparently at liberty to walk through the place without restriction.

In a very short time Madame Lafarge discovered that both she and her relatives had been deceived as to the position of her husband, and that instead of being a man of considerable fortune, he was straitened for means. On his representations

she bestowed upon him all her fortune, and even wrote letters at his dictation to some of her wealthy friends, asking them to aid him to find money to develop a new method he claimed to have discovered for smelting iron. With these letters of introduction, Lafarge set out for Paris in December, 1839, to raise money to start his new project.

While he was away, his wife had her portrait drawn by an artist in Glandier, and determined to send it to her absent husband. She therefore packed it in a box, with some cakes made by his mother, together with an affectionate letter, and despatched them to Paris. This box, which contained nothing but the five small cakes, the portrait, and the letter, was packed and sealed by Madame Lafarge in the presence of several witnesses.

When it reached Paris and was opened by Lafarge, it contained only *one large cake*, after partaking of which he was suddenly taken ill, and was eventually compelled to return home, where he arrived on January 5, 1840. His sickness continued and increased in severity, and nine days afterwards he died.

Shortly after his death his mother and friends, who were well aware how the widow disliked them and also her husband, who had made her life so unhappy, at once imputed the cause of death to poison administered by his wife in the cake she had sent to Paris, and Marie Cappelle Lafarge was arrested on suspicion.

When the house of the deceased man was searched, certain diamonds were found which were supposed to have been stolen from the Vicomtesse de Léotaud by Madame Lafarge before her marriage.

The unfortunate woman was therefore charged with the double crime of theft and murder.

Though arrested in January, 1840, the trial of Madame Lafarge did not commence till July 9 of the same year, and the charge of theft was first proceeded with in her absence, and she was found guilty.

While this judgment was still under appeal, she was brought to trial on the graver charge.

The evidence for the prosecution went to prove that the illness of Lafarge commenced with the eating of the cake

received from his home. As already stated, when the box arrived in Paris the seals had been broken, the five cakes had disappeared, and *a single cake "as large as a plate"* had been substituted for them. It was alleged by the prosecution that this single cake had been prepared by Madame Lafarge, and secretly placed in the box; but no evidence could be brought to prove that she ever tampered with the box after it had been sealed. Lafarge's clerk, Denis Barbier, made a clandestine visit to Paris after the box had been despatched, and he was with Lafarge when it arrived in Paris, yet no notice seems to have been taken of this suspicious fact. It transpired, it was he who first threw out hints on his master's return that he was being poisoned by arsenic, and told a brother employé that his master would be dead within ten days. There was ample proof, however, that there was a considerable quantity of arsenic in the house at Glandier. It was found that Madame Lafarge had purchased some in December, stating she required it for destroying rats; Barbier also stated in evidence that Madame had requested him to procure her some arsenic. He bought some, but did not give it to her. It was further stated that Madame Lafarge was seen to stir a white powder into some chicken broth which had been prepared for her husband, the remains of which, found in a bowl, were said by the analyst to contain arsenic.

The medical men who conducted the post-mortem examination gave it as their deliberate opinion that the deceased man had been poisoned by arsenic, of which poison they professed to have found considerable quantities. The friends of the accused then submitted the matter to Orfila, the famous French toxicologist, who, on giving his opinion of the methods and manner in which the analysis had been carried out, said that owing to the antiquated and doubtful methods of detection employed by the medical men, it was probable they *fancied* they had found arsenic where there was none. Thereupon the prosecution asked Orfila to undertake a fresh analysis himself, which he consented to do, and, on making a careful examination of the remains, stated he discovered just a minute trace of arsenic.

This apparently sealed the doom of the accused woman, and served to strengthen the bias of the jury.

But now another actor appeared in the drama in the person of Raspail, another distinguished French chemist, who had from the beginning had watched the case with interest.

On September 17, 1840, a young barrister knocked at the door of Raspail's apartment in Paris at eleven o'clock at night. Exhausted by thirty-six hours in a postchaise—for he had come straight from Tulle where the trial of Madame Lafarge was being held—he handed the following note to the chemist—

"I am innocent and most unlucky. I am suffering and make appeal to your science and your heart . . . M. Orfila has arrived and I have refallen into the abyss. My hope, Monsieur, is in you. Lend the aid of your knowledge to an unfortunate victim of calumny. Come and save me while all others abandon me.—MARIE LAFARGE."

The writer was an utter stranger to Raspail at this time, but though he had reached the age of forty-six years and was in indifferent health, he decided to sacrifice his night's rest and at 2 a.m. was posting as hard as horses could carry him on the southern high road to the scene of the trial. When he arrived at Limoges he was in a high state of fever and took a room to rest for an hour. The rumour reached him there that Madame Lafarge had been acquitted, so he remained the night and the next day posted on another fifty miles and arrived at Tulle just an hour too late. Madame Lafarge had been found guilty and condemned to penal servitude for life.

It was then that Raspail wrote to the presiding judge the words so often quoted: "Give me anything you like—your own armchair—and I will find arsenic in it."

Raspail has left a long description of his interview with Madame Lafarge whom he then saw. After asking to be allowed to examine the three plates with arsenical deposits that had passed through Orfila's hands, he asked to be allowed to test the reagents left at Tulle by Orfila. The reply was made that "M. Orfila left all his reagents with M. Bories, a pharmacist, except his potash, his zinc, and the nitrate of potash by means of which he obtained the deposit on the third plate."

"Supposing," continues Raspail, "I had acted like Orfila

(as he did on another occasion), applying the pretty expression of 'ignorant crowd' to the host of reagents obtained from local pharmacists and bringing from Paris a nitrate of potash capable of revealing a poison where no other reagent could find an atom, what would the Advocate-General have said? Would he not at once have required that the phial of nitrate from Paris should be examined by the experts present?"

Raspail then took the zinc wire with which Orfila had experimented to the shop where the toxicologist had procured the article, and he found on analysis that the *zinc itself* contained *more arsenic* than Orfila had detected by his examination. Orfila had used Marsh's test, which is infallible so long as the reagents used are free from arsenic themselves.

As already related, Raspail reached Tulle too late to give evidence at the trial, and the unhappy Marie Cappelle Lafarge, after a trial lasting sixteen days, had been found guilty and condemned to imprisonment for life with hard labour, and exposure in the pillory. Raspail, however, would not let the matter rest, and at once set to work to save the condemned woman. He informed Orfila that the zinc he had used was already contaminated with arsenic, and at length got him fairly to admit his error and join with him in a professional report to the authorities to that effect.

After being imprisoned for twelve years, in the end, the sentence on Madame Lafarge was reduced to five years in the Montpellier house of detention, after which the Government sent her to the Convent of St. Rémy, from whence she was liberated in 1852, but only to end her wretched life a few months afterwards.

There appeared in the *Edinburgh Review* for 1842 a careful examination of this interesting case from a legal point of view, in which the writer states that the strongest evidence indicated Denis Barbier and not Madame Lafarge as the perpetrator of the crime. It was proved that this man lived by forgery, and assisted Lafarge in some very shady transactions to cover the latter's insolvency. He was further known to harbour a deadly hatred for Madame Lafarge. He was with his master in Paris when he was seized with the sudden illness, and it transpired that out of the 25,000 francs the ironmaster had succeeded in borrowing from his wife's relatives, only 3,900 could be found

when he returned to Glandier. On his own statement he was in the possession of a quantity of arsenic, and he was the first to direct suspicion against his master's wife. Yet all these facts appear to have been overlooked in the efforts of the prosecution to fasten the guilt on the unfortunate woman. That Lafarge died from the effects of arsenical poisoning there seems little doubt, but by whom administered has never been conclusively proved, and the tragedy remains among the poison mysteries still unsolved.

CHAPTER III

THE CASE OF MADELINE SMITH

THE case of Madeline Smith, who was charged with causing the death of L'Angerlier by the administration of arsenic at Glasgow in 1857, excited universal interest at the time. Owing to the social position of the lady, the trial was a *cause célèbre*, and the circumstances of the case were of an extraordinary character.

Miss Smith, who was a young and accomplished woman, and who resided in a fashionable quarter of Glasgow, got entangled with a French clerk named Pierre Emile L'Angelier. L'Angelier died very suddenly in an unaccountable manner, and suspicion falling on Madeline Smith, who was frequently in his company, she was arrested and charged with the crime. The Crown case was, that she poisoned her lover so that she might be betrothed to a personage of high social standing. That L'Angelier died on March 23 from the effects of arsenic was amply proved, but while suspicious acts were alleged against the accused woman, no direct evidence was adduced to show that she administered the drug. The worst point against her was the fact of her having possession of the poison; and irrespective of two previous purchases of coloured arsenic, for which she had given false reasons, it was proved that the accused had purchased one ounce, as she said "to kill rats," on March 18, only five days before the death of L'Angerlier. The arsenic sold was coloured with indigo, according to the regulations. When charged with the crime, and required to account for the poison, she replied that she had used the whole of it to apply to her face, arms, and neck, diluted with water, and that a school companion had told her that arsenic was good for the complexion. From the post-mortem examination and subsequent analysis *eighty-eight* grains of arsenic were found in the stomach

and its contents. Dr. Christison, the greatest toxicological expert of the time, was called, and stated he knew of no case in which so much as eighty-eight grains of arsenic had been found in the stomach after death.

This was made a turning point of the defence, and it was contended that so large a dose of arsenic could not have been swallowed unknowingly, and, therefore, suicide was indicated. The jury accepting this view of the case, returned a verdict of "not proven," and Madeline Smith was liberated, the trial having lasted ten days.

Some interesting particulars concerning the subsequent life of this lady were published some time ago. After the trial she decided to go abroad; but before starting she is said to have married a certain mysterious individual named Dr. Tudor Hora. With him she lived for many years in Perth, but few people ever saw her, and the doctor always declined to divulge his wife's maiden name. He kept a small surgery, and is said to have been in receipt of about £400 a year from an unnamed source. Some years after, believing that his wife had been recognized, he bought a practice at Hotham, near Melbourne, and they sailed for Australia. Shortly after their arrival, Mrs. Hora left her husband and remained absent from Melbourne until his death. Soon afterwards she married again, but it is said her second marriage was not by any means a happy one. She remained unknown, and sought no society. She was an excellent musician, and spent most of her time reading and playing. She had no children, and died at the age of fifty-five.

Six years after the trial of Madeline Smith a case was tried at the Chester Assizes, in which a woman named Hewitt or Holt was charged with poisoning her mother. Although the symptoms of irritant poisoning were very clearly marked, the country practitioner who attended the woman at the time certified that the cause of her death was due to gastro-enteritis. Eleven weeks after she had been buried, the body was exhumed and examined. An analysis revealed the presence of *one hundred and fifty-four grains* of arsenic in the stomach alone. The possession of a considerable quantity of arsenic was brought home to the accused, and also direct evidence of its administration, and she was found guilty. This

case is interesting from the fact of proof being obtained of the administration of so large a dose of arsenic, and if it had occurred before the trial of Madeline Smith it might have demolished her counsel's main line of defence.

CHAPTER IV

THE BRAVO MYSTERY

ANTIMONY has been a frequent medium with criminal poisoners, including Dove, Smethurst, Pritchard and others, but there is probably no trial in which antimony has figured that caused more interest than the "Bravo Mystery" of 1876.

The story of this case begins with the marriage of Mr. Bravo, a young barrister of about thirty years of age, to Mrs. Ricardo, who was then a wealthy widow and a lady of considerable personal attractions. After the marriage, which followed a very short acquaintance, the couple went to reside at Balham. According to a statement made by Mrs. Bravo, she informed her husband before the marriage of a former lover, and there is little doubt that it rankled in Mr. Bravo's mind, and he frequently taunted his wife with the fact. He was a strong, healthy, and temperate man, but appears to have been both weak and vain in character. On Tuesday, April 18, 1876, after breakfast at his own house at Balham, he drove with his wife into town. On their way, a very unpleasant discussion took place. Arriving in town he had a Turkish bath, lunched with a relative of his wife's at St. James's Restaurant, and walked on his way home to Victoria Station with a friend and fellow-barrister, whom he asked out for the following day. He arrived home about half-past four. Shortly after his return, Mr. Bravo went out for a ride, in the course of which his horse bolted and carried him a long distance, and he got back to his home very tired and exhausted. At half-past six he was noticed leaning forward on his chair, looking ill, and with his head hanging down. He ordered a hot bath, and when getting into it he cried out aloud with pain, putting his hand to his side. The bath did not appear to relieve him

much, and he seemed to be suffering pain all through dinner, but appeared to avoid attracting the attention of his wife and Mrs. Cox, her companion, who dined with him.

The food provided during the dinner was partaken of more or less in common by all three, but this was not the case as regards the wine. Mr. Bravo drank Burgundy only, while Mrs. Bravo and Mrs. Cox drank sherry and Marsala. The wine drunk by Mr. Bravo had been decanted by the butler some time before dinner ; how long he could not say, but he noticed nothing unusual with it,.

The wine was of good quality, and Mr. Bravo, who was something of a connoisseur, remarked nothing peculiar in its taste, but drank it as usual. If he had Burgundy for luncheon he finished the bottle at dinner ; but if not, as on the day in question, the remains of the bottle were put away in an unlocked cellaret in the dining-room. The butler could not remember whether any Burgundy was left on this day or not ; but, however, none was discovered.

This cellaret was opened at least twice subsequently to this, and prior to Mr. Bravo's illness, once by Mrs. Cox and once by the maid.

Mr. Bravo seems to have eaten a good dinner, although he was evidently not himself from some cause or other. It was said he was suffering from toothache or neuralgia, and had just received a letter that had given him some annoyance.

The dinner lasted till past eight o'clock, after which the party adjourned to the morning-room where conversation continued up to about nine o'clock.

Mrs. Bravo and Mrs. Cox then retired upstairs, leaving Mr. Bravo alone, until Mrs. Cox went to fetch Mrs. Bravo some wine and water from the dining-room.

Mrs. Bravo remained in her room and prepared for bed and drank the wine and water brought to her by Mrs. Cox, who remained with her.

The housemaid, on taking some hot water to the ladies' room as was her usual custom at half-past nine, was asked by Mrs. Bravo to bring her some more Marsala in the glass that had contained the wine and water. On her way downstairs to the dining-room, the girl met her master at the foot of the stairs. He looked " queer " and very strange in the face, but

did not appear to be in pain, according to her statement. He looked twice at her, yet did not speak, though it was his custom, but passed on.

Mr. Bravo was alone after the departure of his wife and Mrs. Cox until the time when he passed the housemaid at the foot of the stairs. He entered his wife's dressing-room, and the maid Mrs. Bravo's bedroom. In the dressing-room, according to Mrs. Cox's statement, Mr. Bravo spoke to his wife in French, with reference to the wine. This had frequently been the subject of unpleasant remarks before; but Mrs. Bravo had no recollection of the conversation on this occasion.

After leaving his wife in her room, Mr. Bravo went to his own bedroom and closed the door. The maid left Mrs. Bravo's bedroom and met her mistress in the passage partially undressed and on her way to bed. Mrs. Bravo and Mrs. Cox entered their bedrooms and the former drank her Marsala and went to bed.

In about quarter of an hour Mr. Bravo's bedroom door was heard to open, and he shouted out, "Florence! Florence! Hot water." The maid ran into Mrs. Bravo's room, calling out that Mr. Bravo was ill. Mrs. Cox, who had not yet undressed, rose hastily and ran to his room. She found him standing in his night-gown at the open window, apparently vomiting, and this the maid also saw. Mrs. Cox further stated that Mr. Bravo said to her, "I have taken poison. Don't tell Florence" (alluding to his wife); and to this confession on the part of Mr. Bravo, Mrs. Cox adhered. After this, Mr. Bravo was again very sick, and some hot water was brought by the maid. After the vomiting he sank on the floor and became insensible, and remained so for some hours. Mrs. Cox tried to raise him, and got some mustard and water, but he could not swallow it. She then applied mustard to his feet, and coffee was procured, but he was also unable to swallow that. Meanwhile a doctor, who had attended Mrs. Bravo, and who lived at some distance, was sent for. Mrs. Bravo, who was aroused from sleep by the maid, and who seems to have been greatly excited, insisted on a nearer practitioner being sent for, and in a short time a medical man, living close by, arrived on the scene. The doctor found Mr. Bravo sitting or lying on a chair, completely unconscious,

and the heart's action almost suspended. He had him laid on the bed, and then administered some hot brandy and water, but was unable to get him to swallow it. In about half an hour another medical man arrived, and was met by Mrs. Cox, who said she was sure Mr. Bravo had taken chloroform. Both doctors came to the conclusion that the patient was in a dangerous state, and endeavoured to administer restoratives. Realizing the critical nature of the case, Dr. George Johnson, of King's College Hospital, was sent for. Meanwhile Mr. Bravo was again seized with vomiting, mostly blood, and the doctors came to the conclusion he was suffering from some irritant poison. About three o'clock he became conscious and able to be questioned. He was at once asked, "What have you taken?" But from first to last he persisted in declaring, in the most solemn manner, that he had taken nothing except some laudanum for toothache. In reply to other questions, asking him if there were any poisons about the house, he replied there was only the laudanum and chloroform for toothache, some Condy's Fluid, and "rat poison in the stable." Mr. Bravo did not lose consciousness again until the time of his death, which occurred fifty-five and a half hours after he was first taken ill.

At an early period his bedroom was searched, but nothing was found but the laudanum bottle, and a little chloroform and camphor liniment which had been brought from another room. There were no remains of any solid poison in paper, glass, or tumbler, and nothing to indicate any poison had been taken. The post-mortem examination showed evidence of great gastric irritation, extending downwards, but there was no appearance of any disease in the body, or inflammation, congestion or ulceration. It was left therefore to the chemical analysis to show what was the irritating substance which had been introduced into the body, and supply a key to part of the mystery. The matters which had been vomited in the early stage of Mr. Bravo's illness had been thrown away; but on examination of the leads of the house beneath the bedroom window, some portion of the matter was found undisturbed, although much rain had fallen and the greater part must have been washed away. This was carefully collected and handed to Professor Redwood for

analysis. From this matter he extracted a large amount of antimony. Antimony was also discovered in the liver and other parts of the body, and it was concluded that altogether nearly forty grains of this poison must have been swallowed by the unfortunate man. How he came to swallow this enormous dose, whether the design was homicidal or suicidal, there was not the slightest evidence to show, or where the antimony was obtained. The whole affair was shrouded in mystery, and a mystery it remains.

CHAPTER V

THE RUGELEY MYSTERY

STRYCHNINE is one of the active principles extracted from nux vomica, the singular disk-like seed of the *Strychnos Nux vomica*, a tree indigenous to most parts of India, Burma, Northern Australia, and other countries. Nux vomica was unknown to the ancients, and is said to have been introduced into medicine by the Arabs, but there is very little reliable record of it until the seventeenth century, when the seeds were chiefly used for poisoning animals and birds. Strychnine was discovered in 1818 by Pelletier and Caventou, and was first extracted from St. Ignatius' bean, another species of strychnos in which it is present to the extent of about 1·5 per cent. Very soon afterwards it was extracted from nux vomica, which, being very plentiful, is now the chief source of the drug. It is extremely bitter in taste, and may be distinctly detected in a solution containing no more than one-six-hundred-thousandth part. For a considerable time after its discovery, the detection of strychnine in the body after death was a matter of great uncertainty, especially when only a small quantity had been administered; but now it is possible to detect the presence of one-five-thousandth part of a grain, and that even after some time has elapsed. It has been used for criminal purposes by several notorious poisoners, notably by Dove, Palmer, and Cream, but the symptoms produced are so marked, and its presence so clearly indicated, that detection now is almost certain.

Among the celebrated trials of the last century was that of Dr. Palmer, who was charged with the wilful murder of John Parsons Cook, at Rugeley, in 1855. A special Act of Parliament was passed in order to have this case tried in London, where it was brought before Lord Chief Justice

Campbell, Mr. Baron Alderson, and Mr. Justice Cresswell, at the Central Criminal Court, on May 14, 1856. The Attorney-General, Mr. E. James, Q.C., with several other counsel, conducted the prosecution, and Palmer was defended by Mr. Serjeant Shee, Messrs. Grove, Q.C., Gray and Kenealy.

The accused, who was a country doctor, had carried on a medical practice in Rugeley, a small town in Staffordshire, for some years. Becoming interested in racing he made his practice over to a man named Thirlby, a former assistant, and shortly afterwards made the acquaintance of John P. Cook over some betting transactions. Cook was a young man of good family, about twenty-eight years of age, and was intended for the legal profession. He was articled to a solicitor; but after a time, inheriting some property worth between twelve and fifteen thousand pounds, he abandoned law and commenced to keep race-horses. Meeting Palmer at various race-meetings, they soon became very intimate. In a very short time Palmer got into difficulties, and was compelled to raise money on bills. Things went from bad to worse, until he at last forged an acceptance to a bill in the name of his mother, who was possessed of considerable property. In 1854 he owed a large sum of money, and in the same year his wife died, whose life, it transpired, he had insured for £13,000. With this money he bought two race-horses; but in his betting transactions he lost heavily, and then commenced to borrow money from Cook, whose name he also forged on one occasion on the back of a cheque. He insured his brother's life for £13,000, and very shortly after *he* died, the amount being also paid to Palmer. This money soon went, and at length he had two writs out against him for £4,000.

In the meanwhile, Cook had been more successful than his friend in his racing ventures, and had won a considerable amount with a race-horse called Polestar. Polestar was entered for the Shrewsbury races on November 14, 1855, and Cook and Palmer went there and stayed with some friends at the same hotel in that town. On the evening of the races they were drinking brandy-and-water together. Cook asked Palmer to have some more, and the latter replied, "Not unless you finish your glass." Cook, noticing that he had some still

left in his tumbler, said, "I'll soon do that," and finished it at a draught. On swallowing it he immediately exclaimed, "There's something in it burns my throat." Palmer took up the glass and said, "Nonsense, there is nothing in it," and called the attention of the others standing by. Cook then suddenly left the room, and was seized with violent vomiting. This became so bad that he soon had to be taken to bed, and appeared to be very seriously ill. Two hours later a medical man was sent for, who at once prescribed an emetic, and then a pill. He obtained relief from these, and by the morning the vomiting had ceased, and he was much better, though he still felt very unwell. They returned to Rugeley together, Cook taking rooms at an hotel directly opposite Palmer's house. Cook was still confined to his room, and during the next few days was constantly visited by Palmer, and after each visit it was noticed the sickness commenced again. On one occasion Palmer had some broth prepared, which he specially wished Cook to take. The latter tried to swallow it, but was immediately sick. It was then taken downstairs, and a woman at the hotel, thinking it looked nice, took a couple of tablespoonsful of it, but within half an hour she was taken seriously ill and was obliged to go to bed, her symptoms being exactly like those of Cook when first taken ill at Shrewsbury. Three days afterwards a neighbouring doctor was called in, Palmer telling him that Cook was suffering from a bilious attack. Palmer then went off to London, his business being to try and arrange about the settlement of some debts that were pressing. From the time he left, it was noticed by the doctor that Cook's condition rapidly improved and in a day or two he was able to leave his bed and be up and dressed. On Palmer's return to Rugeley he at once went to see Cook and during the rest of his illness was constantly with him. On the evening of his return he also called on a surgeon's assistant, with whom he was acquainted, and purchased from him three grains of strychnine. Cook was taking some pills which had been prescribed by the doctor and which had done him good. They were ordered to be taken at bed-time, and the box containing them was in his room. He was visited by Palmer about eleven o'clock the same night, and up to that time he was apparently well. After Palmer had left, about

twelve o'clock the whole house was aroused by violent screams proceeding from Cook's room. The servants rushed in and found him writhing in great agony, shouting "Murder!" He was evidently suffering intense pain, and soon was seized with convulsions. Palmer was at once sent for, and on his arrival Cook was gasping for breath, and hardly able to speak. He ran back to procure some medicine, which on his return he gave him, but the sick man at once threw it back. The attack gradually passed off, and by the morning he was somewhat better, but very weak. The same day Palmer visited a chemist he knew in the town, and purchased six grains of strychnine. During the afternoon a relative of Palmer's, who was also a medical man, arrived on a visit to Rugeley, and he was taken to see Cook, and in the evening a consultation was held by the three medical men. They agreed to prescribe some medicine for the patient in the form of pills, which were prepared, and in the course of the evening were handed to Palmer, who was to administer the dose the last thing at night.

About half-past ten Palmer gave Cook two of the pills, settled him comfortably for the night, and went home. At ten minutes to eleven Cook roused the house with a frightful scream, calling out, "I'm going to be ill as I was last night." Palmer was sent for, and brought him two more pills, which he said contained ammonia, and gave them to Cook. Very shortly afterwards convulsions set in, which were followed by tetanus, and the unfortunate man died in a few minutes in great agony.

The deceased man's relatives were communicated with, and his father-in-law soon arrived in Rugeley. On Palmer being questioned about Cook's affairs, he said that he held a paper drawn up by a lawyer, and signed by Cook stating that, in respect of £4,000 worth of bills, he (Cook) was alone liable, and Palmer had a claim for that amount against the estate. This, with other matters, aroused suspicion, and it was decided to hold a post-mortem examination on the body to ascertain the cause of death. Palmer was present at the examination and by his deliberate act the fluid contents of the stomach were lost. What portions of the body were recovered for analysis he did all he could to prevent from reaching the analysts. When the jars, etc., were being sent to London for

examination by the Government analyst, he intercepted them, and offered the post-boy £10 to upset the conveyance and break them.

The evidence offered at the trial was almost entirely circumstantial, and the medical testimony was very conflicting. It was supposed, in the first instance, Palmer had administered tartar emetic to his victim, but that for the fatal dose strychnine was used. It was proved Palmer had purchased strychnine under suspicious circumstances on the morning of the day on which Cook died, and could not account for the purchase of it, or state what he had done with it. The symptoms appeared at a time which would correspond to the interval that precedes the action of strychnine, being developed over the entire body and limbs in a few minutes, suddenly and with violence. None of the pills could be obtained for analysis.

Dr. Taylor, who made the analytical examination, was unable to find any trace of strychnine in the portions submitted to him, but he found half a grain of antimony in the blood; but judging from the clinical symptoms before death he believed Cook died from the effects of strychnine. The great point in the case was, did the tetanic symptoms, under which the deceased man died, depend on disease or poison? Doctors Brodie, Christison and Todd, and other eminent authorities of the time agreed that when taken as a whole they were not in accordance with any form of disease, but were in perfect accordance with the effects of strychnine. On the other hand, medical men called for the defence testified that tetanus might be caused by natural disease, and the deceased might have died from angina pectoris or epilepsy. In spite of the absence of confirmatory chemical evidence and proof of the presence of strychnine in the body, after one hour and seventeen minutes' deliberation, the jury returned a verdict of "Guilty," and Palmer was sentenced to death, the trial having lasted twelve days.

The rigid and fixed condition of the limbs is a marked feature after poisoning by strychnine. In the Horsford case, in which a farmer named Walter Horsford was convicted of the murder of his cousin Annie Holmes, at St. Neots, in 1897, 3·69 grains of strychnine were recovered from the internal organs, after the body was exhumed, *nineteen days* after death.

Even then, rigidity was very marked, especially in the lower limbs and fingers. The same rigidity was remarked by Dr. Stevenson in the case of Matilda Clover, who was poisoned by Neill Cream with strychnine in 1891. In this case, the body had been buried *from October until May*, and the rigidity in the limbs and fingers was still maintained. Dr. Stevenson stated that usually when persons are suffering from strychnine poisoning, they are very apprehensive of death. He had known a woman say, " I am going to die " before any intimation of symptoms had occurred. The first apprehension is, that some terrible calamity is about to take place.

CHAPTER VI

THE CASE OF DR. PRITCHARD

THE remarkable case of Dr. E. W. Pritchard, of Glasgow, who was arrested and charged with murdering his wife and mother-in-law in that city in the year 1865, excited great interest at the time. The respectable position occupied by the accused man in Glasgow, and the practice as a physician which he had been enabled to attain in the course of his six years' residence there, awakened an unusual degree of attention in the public mind when the fact of his apprehension became known. The excitement was strengthened by the mystery invariably attached to the prosecution of all criminal inquiries in Scotland.

It transpired that for some time previous to her decease, Mrs. Pritchard had been in a delicate state of health, and her mother, Mrs. Taylor, wife of Mr. Taylor, a silk weaver, of Edinburgh, had gone to Glasgow to nurse her during her illness. Mrs. Taylor took up her abode in the house of Dr. Pritchard, and ministered to her daughter's comfort; but while so engaged she became ill, and died suddenly, about three weeks previous to the day on which the accused man was apprehended. The cause of death was assigned to apoplexy, and as the lady was about seventy years of age no suspicions were aroused, and the body was conveyed to Edinburgh and buried in the Grange Cemetery.

Circumstances closely following on this, however, awakened grave suspicions. Mrs. Pritchard died shortly after her mother, and a report was circulated that she had succumbed to gastric fever. The family grave at the Grange cemetery was fixed on as the place of interment, and arrangements were made for the funeral without delay. The body was taken to Edinburgh by rail, and Dr. Pritchard accompanied it to the house

of his father-in-law, where it was to await interment. The deaths of the two ladies occurring within so short an interval of each other, coupled with certain hints which they had received, set the police on the alert, and while Dr. Pritchard was absent in Edinburgh they instituted inquiries, which led to a warrant being issued for his apprehension. On his return to Glasgow, previous to the day fixed for the funeral, he was arrested at the railway station in Queen Street and conveyed to the police station.

Meanwhile the authorities had transmitted to Edinburgh information of what had been done, and at the same time had issued a warrant for a post-mortem examination on the body of Mrs. Pritchard. This was entrusted to Professor Douglas Maclagan, assisted by Drs. Arthur Gamgee and Littlejohn. The result of the post-mortem proved that death had not resulted from natural causes, and a subsequent examination disclosed the presence of minute particles of antimony in the liver.

The case now assumed a grave and mysterious aspect, and the authorities resolved to carry the investigations further. The next step was to order the exhumation of the body of Mrs. Taylor. This having been effected, the internal organs were submitted to analysis by Professor Maclagan, Dr. Littlejohn, and Professor Penny, of Glasgow, who, after a protracted examination, reported that the death of Mrs. Taylor, like that of her daughter, was due to poisoning by antimony. On these facts being elicited, Dr. Pritchard was fully committed on the charge of murdering Jane Taylor, his mother-in-law, and Mary Jane Pritchard, his wife.

The trial opened on July 3, 1865, at the High Court of Justiciary, Edinburgh, before the Lord Justice-Clerk, Lord Ardmillan, and Lord Jerviswoode, the Solicitor-General prosecuting for the Crown, while the prisoner was defended by Messrs. A. R. Clark, Watson and Brand.

Evidence was given that Mrs. Pritchard was first taken ill in the October of 1864, with constant vomiting, often accompanied by severe cramp. After being treated by her husband for some time, and getting no better, at her own request a Dr. Gardiner was called in, and her mother, Mrs. Taylor, came from Edinburgh to nurse her.

While on this visit to her daughter, Mrs. Taylor, on February 24, 1865, complained of feeling unwell. The next day she was found insensible, sitting on her chair in her daughter's room, and died the same night. From this time, Mrs. Pritchard got gradually worse, and died within three weeks afterwards.

Mary McLeod, a girl who had been in the service of the prisoner, admitted that he had familiar relations with her, and that this fact was known to Mrs. Pritchard. The doctor had also made her presents, and told her he would marry her if his wife died.

Dr. Paterson, a medical practitioner, of Glasgow, who was called in to see Mrs. Taylor, stated Pritchard told him the old lady was in the habit of taking Batley's solution of opium, and a few days before her death she had purchased a half-pound bottle. When he saw her, he was convinced her symptoms betokened that she was under the depressing influence of antimony, and not opium. He therefore refused to give a certificate of death.

Pritchard eventually signed the certificate himself, stating the primary cause of death had been paralysis and the secondary cause apoplexy. He further certified Mrs. Pritchard's death as due to gastric fever.

It was proved on the evidence of two chemists, that Pritchard was in the habit of purchasing tartarated antimony in large quantities, and also Fleming's tincture of aconite.

Dr. Maclagan, Professor of Medical Jurisprudence at the University of Edinburgh, was called to give the result of the chemical examination of the various organs of the body of Mrs. Pritchard, which had been retained for analysis. Antimony, corresponding to one-fourth of a grain of tartar emetic, was found in the urine, in small quantities in the bile and the blood, and as much as four grains in the whole liver. Evidence of the presence of antimony was also found in the spleen, kidney, muscular substance of the heart, coats of the stomach and rectum, the brain and uterus.

Antimony was also detected in various stains on linen and articles of clothing, which had been worn by Mrs. Pritchard during her illness.

From these results Dr. Maclagan concluded that Mrs. Pritchard had taken a large quantity of antimony in the form

of tartar emetic, which caused her death, and that from the extent to which the whole organs and fluids of the body were impregnated with the drug, it must have been given in repeated doses up to within a few hours of her decease.

The result of the chemical examination of the various organs of the body of Mrs. Taylor, which was exhumed for this purpose, revealed the presence of 0·279, or a little more than a quarter of a grain of antimony in the contents of the stomach. Antimony was also found in the blood, and 1·151 grain was recovered from the liver.

Dr. Penny, who made an independent analysis, found distinct evidence of antimony in the liver, spleen, kidney, brain, heart, blood, and rectum, but no trace of morphine or aconite. He also came to the conclusion that Mrs. Pritchard's death had resulted from the effects of antimony.

Antimony was found mixed with tapioca contained in a packet discovered in the house, also in a bottle containing Batley's solution of opium found in the prisoner's surgery.

Dr. Littlejohn, surgeon to the Edinburgh police, who was present at the post-mortem examination of both women, gave his opinion that Mrs. Pritchard's death had been due to the administration of antimony in small quantities, and that continuously. In Mrs. Taylor's case he believed some strong narcotic poison had been administered with the antimony.

This opinion was further endorsed by Dr. Paterson. Evidence was offered, that Pritchard had been in the habit of purchasing large quantities of Batley's solution of opium, which the manufacturers swore contained no antimony. For the defence it was urged that there was no proof whatever that poison had been administered by the prisoner, who had always lived on affectionate terms with his wife, and that the motive suggested was of the most trifling nature; that the stronger suspicion pointed to the maid-servant, Mary McLeod, on whose uncorroborated statements the chief evidence against the prisoner lay. The senior counsel for the prisoner (Mr. Clark) concluded his address by stating that the Crown had admitted there were but two persons who could have committed the crime—the prisoner and Mary McLeod. Mary McLeod's hand had been found in connection with every one of the acts in which poison was said to have been admin-

istered in the food. The case against the prisoner seemed to depend on a series of suspicions and probabilities, and not upon legal proof, and upon these grounds he asked for a verdict of acquittal.

The summing-up of the Lord Justice-Clerk occupied three hours and twenty minutes, on the conclusion of which the jury retired to consider their verdict. After an absence of fifty-five minutes they returned with the following verdict, "The jury unanimously find the prisoner guilty of both charges as libelled."

Dr. Pritchard was thereupon sentenced to death, and was executed at Glasgow on July 28, 1865.

There can be little doubt that he fully deserved his fate.

CHAPTER VII

THE CASE OF DR. LAMSON

THE only case on record in which the active principle of aconite has been used for the purpose of criminal poisoning is that of Dr. Lamson, who suffered the extreme penalty of the law for administering the drug to Percy Malcolm John, and thereby causing his death. The story is remarkable for the cold-blooded way in which the murder was carried out.

George Henry Lamson, a surgeon in impecunious circumstances, had a reversionary interest, through his wife, in a sum of £1,500, which would come to him on the death of his brother-in-law, Percy Malcolm John. The latter, a sickly youth of eighteen years of age, was paralysed in his lower limbs from old-standing spinal disease.

At the beginning of December, 1881, Lamson went down to the school where John had been placed as a boarder, and had an interview with him in the presence of the head master, professing at the same time a kindly interest in the youth and his health. During the interview he produced some gelatine capsules, one of which he offered to the head master in order that he might see how easily it dissolved in the mouth, and another he filled with a white powder presumed to be sugar and gave to his brother-in-law. Directly after seeing him swallow it he took his departure. Within a quarter of an hour, the boy became unwell, saying he felt the same as when Lamson had given him a quinine pill on a former occasion, also adding "My skin feels all drawn up and my throat burning."

Violent vomiting soon set in, and he became unable to swallow. This was rapidly followed by delirium, and in three hours and three-quarters death ensued.

A post-mortem examination was ordered, and the organs of the body, together with the remainder of the capsules, and various pills and powders found in the boy's room which had been sent to him at different times by Dr. Lamson, were sent for analysis. Meanwhile from information received by the police from another quarter Lamson was arrested and charged with the murder of his brother-in-law.

The trial began on March 9, 1882, before Mr. Justice Hawkins, the Solicitor-General, Mr. Poland, appearing for the prosecution, and Mr. Montagu Williams and others for the defence.

The Solicitor-General in his opening speech stated, that the post-mortem on the body revealed the fact, that the only sign of disease was the old-standing curvature of the spine and evidence of paralysis in the lower extremities. There was much, however, that called for remark in the condition of the stomach and other organs. The conclusion that the medical men came to was, that there was no natural cause to account for death, but that the state of the stomach indicated that death had resulted from poison—not what was called a local irritant poison, but some vegetable poison which had acted upon the nerves and other centres.

Dr. Stevenson, who, together with Dr. Dupré, had conducted the analysis, gave evidence, and began by stating that he had received besides the organs of the body, certain packets of pills, powders, sugar, etc. Working in collaboration with Dr. Dupré, he applied a modification of Stas's process to the liver, spleen and kidneys, and the result obtained was an alkaloidal extract which contained a trace of morphine, and when placed on the tongue gave a faint sensation like that produced by aconitine. The contents of the stomach, treated by the same process, also revealed an alkaloidal extract which when tasted produced the same faint sensation as that of aconitine. "When placed on the tongue," he continued, "the contact caused a burning sensation which extended to the lip, although the extract did not touch the lip. The character of the sensation was a burning and a tingling, a kind of numbness. It is difficult to describe. It produced a salivation, a desire to expectorate and a sensation at the back of the throat as if it were swelling up, and this was followed by a peculiar

seared feeling as if a hot iron had been drawn over the tongue, or some strong caustic placed upon it.

"The effect of aconitine is a burning feeling extending down towards the stomach. It is a sickening feeling peculiar to this substance. I have never found it in any other alkaloid, and I have tasted a great number.

"With a portion of the alkaloidal extract," Dr. Stevenson proceeded, "I made an experiment. I dissolved it and injected it beneath the skin of a mouse. The animal was obviously affected in two minutes. From that time onward it exhibited symptoms of poisoning and died in thirty minutes from the time of the injection of the substance. I then made a similar experiment with Morson's preparation of aconitine, procured specially for this purpose. I dissolved it in the same solution that I had used for the extract and operated with it on the mouse in the same manner. The effect was indistinguishable from that of the extract."

This same experiment was repeated with extracts made from the different organs, and each time the same result was obtained. On analysis of the vomit an alkaloidal extract was again obtained. Dr. Stevenson applied this to his tongue and found it had a very powerful result, the effect lasting markedly for six and a half hours. On an injection being made into the back of a mouse it was severely affected in two and a half minutes and death resulted in fifteen minutes. "Parallel results," he stated, "were obtained with aconitine. In my judgment the vomit contained a considerable quantity of aconitine. Approximately, it was not less than one-seventh and not more than one-fourth of a grain. There has only been one fatal case that I know of in which aconitine has caused the death of a human being, and the quantity that proved fatal—the quantity that actually caused death—was known not to be less than one-thirteenth of a grain."

Dr. Stevenson then described the results of the analysis of the various powders, pills, etc., that had been handed to him. In the sweetmeats, cake and sugar he found no trace of poison at all. He then turned to the quinine powders, of which there were fourteen. "My attention," he said, "was called to one by Dr. Dupré. It was a little different in colour, as also were two others, and was obvious to the trained eye.

An analysis of one revealed 0·83 gr. of aconitine and 0·93 gr. of quinine." On testing one of the pills also, he came to the conclusion that it contained 0·45, or nearly half a grain of aconitine.

The capsules were handed to the judge, who remarked that the half grain took up barely one-tenth of the space in the capsule.

In the course of the trial it transpired that the prisoner had become possessed of aconitine a few days before the crime was committed. On the 11th of November he had been to a chemist in Oxford St., and had a prescription made up consisting of atropine and morphine. On the 16th he called again and asked for a grain of digitalin, saying it was for external use. The liquid in the bottle was found to be discoloured, and the assistant, fearing it might be impure, refused to supply it. A few days later Dr. Lamson called again and asked for some aconitine. The assistant, knowing this was a poison of a very dangerous character, declined to supply it and advised him to go where he was better known.

Dr. Lamson then went on November 24th to a firm of chemists in the city and asked for two grains of aconitine. Asked for his name, he wrote George H. Lamson, Bournemouth, and the name being in the Medical Directory, he was duly supplied with the required amount. When the name of Dr. Lamson appeared in the newspapers in connection with the death of Percy John, the assistant who had supplied the poison drew the attention of his employers to the circumstance, and the police were communicated with.

Mr. Montagu Williams, for the defence, urged that the results of Dr. Stevenson's and Dr. Dupré's experiments were consistent with other causes and suggested that the extracts which were so fatal to the mice might contain certain animal poisons, the result of decomposition. He contended that it had been admitted that very little was known of aconitine, and that therefore these tests were not to be relied upon. The proper verdict, he submitted, would be the Scottish one of "Non Proven," and as that was not possible in England, the prisoner was entitled to an acquittal. He reminded the jury of the weak state of the boy's health, and the general expectation that he would not live long.

The judge, in summing up, said the question for the jury to decide was whether they were satisfied the deceased came to his death by poison, and if so whether the poison was administered by the prisoner. It was for the prosecution to prove the guilt of the prisoner, and if they failed to do so the case was at an end. The trial lasted for six days, and after the summing-up, the jury retired, returning after an absence of twenty-five minutes, with a verdict of "Guilty." The judge then pronounced sentence of death on Lamson, which was duly carried out on August 28, 1882.

According to evidence at the trial, it is probable that Lamson had made several previous attempts on the boy's life with aconitine in the form of pills and powders, which he had given him under the pretence of prescribing for his ailments. The money to which he was entitled on the death of John doubtless supplied the motive for the crime.

Lamson, as a medical man, no doubt knew that there was no chemical test for aconitine, and that it would not be likely to be detected during the post-mortem. In fact, there was nothing to show after the autopsy that the cause of death was not natural, and it was only the few words uttered by the dying boy, alluding to his sensations, which gave the clue to the scientific investigators.

The difficulty of proving the presence of a rare vegetable alkaloid in the body after death was, no doubt, duly considered by Lamson when he fixed on aconitine as the medium for his evil design, but science proved the master of the criminal, and the evidence of the instrument by which the crime was committed was proved indisputably.

CHAPTER VIII

THE PIMLICO MYSTERY

CHLOROFORM belongs to the class of neurotic poisons which act on the brain, and produce loss of sensation. It is a colourless, heavy and volatile liquid, having a peculiar ethereal odour which cannot be easily mistaken, and a sweet pungent taste when diluted. For producing insensibility it requires both careful and experienced administration, and more lives have been lost by carelessness in using than from the noxious character of the drug.

The stories that appear from time to time, of persons who have been rendered unconscious simply by waving a chloroformed handkerchief before the face, usually emanate from the fertile brain of some imaginative journalist. As an internal poison chloroform has rarely been used, although there are many cases on record where persons have accustomed themselves to drinking chloroform, until they have been able to swallow it in very large quantities. The one recorded instance in which it was alleged to have been used internally for the criminal destruction of life was in the remarkable case known as the " Pimlico Mystery."

The trial of Adelaide Bartlett, for the wilful murder of her husband by administering chloroform to him, was held before Mr. Justice Wills at the Central Criminal Court on April 12, 1886, and lasted for six days. The case attracted considerable attention and interest throughout, which culminated in a dramatic scene at the close, and the acquittal of the accused woman. The strange relations which existed between Mrs. Bartlett and her husband, with whose murder she was charged, the yet more strange relations between her and the man who in the first instance was included in the accusation, together with the exceptional circumstances of his acquittal and his

immediate appearance in the witness-box, formed a case of peculiar dramatic interest.

Thomas Edwin Bartlett was a grocer, having several shops in the suburbs of London, and at the time of his death was forty years of age. In 1875 he married a young French girl named Adelaide Blanche de la Tremoille, who was a native of Orléans, whom he met at the house of his brother. After the marriage he sent her to a boarding-school at Stoke Newington, and she lived with her husband only during the vacation. At a later period she went to a convent school in Belgium, where she remained for about eighteen months, after which she rejoined her husband, and settled down to live in London. During Christmas of 1881 she gave birth to a stillborn child, which so affected her that she came to the resolution that she would have no more children. Some four years later Mr. Bartlett and his wife made the acquaintance of the Rev. George Dyson, a young Wesleyan minister, who soon became on terms of great social intimacy, visiting and dining with them frequently. The admiration for their friend seems to have been common to both husband and wife. In 1885 Edwin Bartlett made a will, leaving all he possessed to his wife, and making Mr. Dyson and his solicitors his executors. Shortly afterwards the Bartletts removed to furnished apartments in Claverton Street, Pimlico, where they apparently lived on good terms, and were still frequently visited by their friend Mr. Dyson.

On December 10, in the same year, Mr. Bartlett became seriously ill. Peculiar symptoms developed, which excited the curiosity and surprise of the medical man called in to attend him. The state of his gums suggested to the doctor that the illness was due to mercury, which in some way was being administered to him, and he complained of nervous depression and sleeplessness. He appeared to be gradually recovering from this, but on December 19 Mr. Bartlett himself suggested that a second doctor should be called in, lest, as he put it, "his friends should suspect, if anything happened to him, that his wife was poisoning him." The cause for this was put down to some ill-feeling which had formerly existed between Mrs. Bartlett and her husband's father. A second practitioner, therefore, was called in, and the patient, on

December 26, though still weak, was practically well and went out for a drive.

The next day Mrs. Bartlett asked Mr. Dyson, who was constantly calling at the house, to procure for her a considerable quantity of chloroform, which she told him she had used before on her husband for some internal ailment of long standing, and that this internal affection had upon previous occasions given him paroxysms. She further expressed a belief that he might die suddenly in one of these attacks. Dyson seems meekly to have yielded to her request, and obtained three different lots of chloroform, in all six ounces, from various chemists, giving the reason that he required it for taking out grease spots, and placed it all together in one bottle. Two days after, he met Mrs. Bartlett on the Embankment and handed her the chloroform.

During his illness, Mr. Bartlett had slept on a camp bedstead in the front drawing-room, his wife occupying a sofa in the same room. On December 31 he was apparently in good health, and about half-past ten o'clock in the evening, Mrs. Bartlett told the servant she required nothing else and retired with her husband for the night. At four o'clock in the morning the house was aroused by Mrs. Bartlett, and it was discovered her husband was dead in bed.

The statement made by the lady was, that when her husband had settled for the night she sat down at the foot of the bed with her hand resting upon his feet. She dozed off in her chair, but awoke with a sensation of cramp, and was horrified to find her husband's feet were deathly cold. She tried to pour some brandy down his throat, and then found he was dead. She then aroused the household. The first person who entered the room was the landlord, who noticed a peculiar smell that reminded him of chloric ether. The doctor was promptly sent for, but from external examination could find nothing to account for death. The only bottle found was one that contained a drop or two of chlorodyne. A post-mortem examination was held, and the stomach showed evidence of having contained a considerable quantity of chloroform. There was no internal disease or growth, the organs being quite healthy, and nothing to account for death

beyond the chloroform, which the medical men concluded must have been the cause of death.

The coroner's inquiry resulted in a verdict of wilful murder against Adelaide Bartlett and George Dyson, and they were both arrested.

At the trial, the Crown decided to offer no evidence against Dyson, and, after being indicted and pleading "Not guilty," he was discharged by the judge to be called as a witness.

A brilliant array of counsel were engaged on the case, Sir Charles Russell had charge of the prosecution, while the defence of Mrs. Bartlett was entrusted to Sir Edward Clarke, and that of Mr. Dyson to Mr. Lockwood.

Dyson's examination occupied nearly the whole of the second day of the trial, during which he detailed the form of the intimacy between Mrs. Bartlett and himself. He related how he procured the chloroform and disposed of the bottles after hearing the result of the post-mortem by throwing them away on Wandsworth Common while on his way to preach at Tooting. He was in the habit of kissing Mrs. Bartlett, and usually called her Adelaide. He had had conversations with Mr. Bartlett on the subject of marriage, and had heard him express the opinion that a man should have two wives, one to look after the household duties, and another to be a companion and confidante. He had told Mr. Bartlett he was becoming attached to his wife, but the latter seemed to encourage it, and asked him to continue the intimacy. He did not mention the matter of having procured the chloroform for Mrs. Bartlett until he had heard the result of the post-mortem.

The medical man called in to attend Mr. Bartlett during his illness described the condition in which he found him, and his recovery from the illness. He also gave an account of a very extraordinary statement, which was made to him by Mrs. Bartlett after the death of her husband. It was as follows. At the age of sixteen years she was selected by Mr. Bartlett as a wife for companionship only, and for whom no carnal feeling should be entertained. The marriage compact was, that they should live together simply as loving friends. This rule was faithfully observed for about six years of their married life, and then only broken at her earnest and repeated entreaty

that she should be permitted to be really a wife and a mother. The child was stillborn, and from that time the two lived together, but their relations were not those of matrimony. Her husband showed great affection for her of an ultra-platonic kind, and encouraged her to pursue various studies, which she did to please him. He affected to admire her, and liked to surround her with male acquaintances, and enjoy their attentions to her. Then they became acquainted with Dyson. Her husband conceived a great liking for him, and threw them together. He requested them to kiss in his presence and seemed to enjoy it, and gave her to understand that he had "given her" to Mr. Dyson. As her husband gradually recovered from his illness he expressed a wish that they should resume the ordinary relations of man and wife, but she resented it. She therefore sought for some means to prevent his desire, and for this purpose she asked Dyson to procure the chloroform.

On the night of his death, some conversation of this kind had taken place between them, and when he was in bed she brought the bottle of chloroform. She gave it to him, informing him of her intention to sprinkle some upon a handkerchief and wave it in his face, thinking that thereby he would go peacefully to sleep. He looked at the bottle and placed it by the side of the low bed, then, turning over on his side, apparently went to sleep. She fell asleep also, sitting at the foot of the bed, with her arm round his foot; she heard him snoring, then woke again, and found he was dead.

Dr. Stevenson, who made the analysis, gave evidence as to finding eleven and a quarter grains of pure chloroform in the stomach of the deceased, but, judging from the time that had elapsed and the very volatile nature of the liquid, a large quantity must have been swallowed. No other poisons were found. The jury, after deliberating nearly two hours, returned a verdict of "Not guilty," and Mrs. Bartlett was acquitted.

There was no evidence to prove that chloroform had been administered to Mr. Bartlett, and it was suggested that he had awoke, and by mistake swallowed some of the contents of the bottle.

CHAPTER IX

THE MAYBRICK CASE

ON July 31, 1889, one of the most remarkable poisoning cases on record was tried before Mr. Justice Stephen, at the Liverpool Assizes. The trial, which lasted eight days, excited the keenest interest in the locality and throughout the country, especially as the principal actors in the tragedy were people of good social position and well known. The accused, Mrs. Florence Maybrick, wife of a Liverpool merchant, was charged with causing the death of her husband by administering arsenic to him.

About the end of April, 1889, Mr. James Maybrick, who lived at Grassendale, near Liverpool, was seized with a peculiar illness, of which the main symptoms consisted of a rigidity of the limbs and a general feeling of sickness which quite prostrated him, and eventually confined him to bed. The local medical man who was called in to attend him, attributed the cause to extreme irritability of the stomach and treated him accordingly. Becoming puzzled by the persistent sickness and the rapidly increasing weakness of his patient, he called a physician in consultation. From this time he grew considerably worse and severer symptoms set in, which caused the doctors to suspect the cause was due to some irritant poison. This was confirmed by the discovery that arsenic had been placed in a bottle of meat-juice that was being administered to the sick man. At the instance of the physician called in consultation, trained nurses were placed in charge, and a close watch kept on the patient, but without avail, and he died on May 11.

From statements made to the police, suspicions were aroused, Mrs. Maybrick was arrested, and eventually charged with the wilful murder of her husband.

From evidence given at the trial, it transpired that the relations between husband and wife had not been of the most cordial character for some time. There were frequent disagreements, and just before Mr. Maybrick was taken ill there had been a serious quarrel, resulting from his wife's relations with another man. The lady resented the accusation, and a separation was contemplated. The fatal illness then intervened, during the first portion of which Mrs. Maybrick nursed her husband. A letter addressed to her lover, which she had given to a nursemaid to post, was opened by the girl and handed to Mr. Maybrick's brother, trained nurses were called in and the sick man placed in their sole charge. This letter, which formed one of the strongest pieces of evidence against the accused, revealed the connection between Mrs. Maybrick and her lover, and conveyed the intelligence to him that her husband was "sick unto death." Evidence was also given by the servants of fly-papers having been seen in process of maceration in water in Mrs. Maybrick's bedroom. The trained nurses also gave evidence concerning the suspicious conduct of Mrs. Maybrick in tampering with the medicines and meat-juice which were to be administered to the patient. These suspicions culminated in the discovery of arsenic in a bottle of meat-juice by one of the medical attendants. Considerable quantities of arsenic were found by the police in the house, including a packet containing seventy-one grains, mixed with charcoal, and labelled "Poison for cats."

The analytical examination was conducted by Dr. Stevenson and Mr. Edward Davis, a Liverpool analyst, who discovered traces of arsenic in the intestines, and 0·049 of a grain of arsenic in the liver, traces of the poison being also found in the spleen. Arsenic was also found in various medicine bottles, on handkerchiefs, in bottles of glycerin, and in the pocket of a dressing-gown belonging to the accused. Dr. Stevenson stated that he believed the body of the deceased at the time of death probably contained a fatal dose of arsenic.

The scientific evidence adduced at the trial was of a very conflicting character. On one hand, the medical men who attended the deceased, and the Government analyst, swore they believed that death was caused from the effects of arsenic;

while on the other, Dr. Tidy, who was called for the defence, stated as an expert that the quantity of arsenic discovered in the body did not point to the fact that an overdose had been administered. He believed that death had been due to gastro-enteritis of some kind or other, but that the symptoms and post-mortem appearances distinctly pointed away from arsenic as the cause of death. Dr. Macnamara, ex-president of the Royal College of Surgeons, Ireland, also stated that in his opinion Mr. Maybrick's death had not been caused by arsenical poisoning and that he agreed with Dr. Tidy that the cause was gastro-enteritis, unconnected with arsenical poisoning. For the defence, it was also urged that the deceased man had been in the habit of taking arsenic in considerable quantities for some years. In support of this, witnesses were called to prove that he had been in the habit of taking a mysterious white powder, and that while living in America, he frequently purchased arsenic from chemists, who knew he was in the habit of taking it. A negro, who had been in the service of the deceased in America, also deposed to seeing him take this white powder in beef tea.

Sir Charles Russell, in his speech for the defence, stated that Mr. Maybrick had been in the habit of taking arsenic for many years, and was a man who prided himself on his knowledge of medicine. What was more likely than that he should have had a supply of that poison in the house, and that he had ultimately dosed himself to death with it ?

After the last witness for the defence had left the box, Sir Charles Russell held a rapid consultation with Mrs. Maybrick. A glance of dissatisfaction crossed his face as he turned to the judge and asked if the prisoner might make a statement. The judge replied in the affirmative and the accused woman rose to her feet, and in a low voice broken by emotion read the following plea from a written paper she held in her hand, amid the breathless silence of those in court :—

" My Lord, I wish to make a statement, as well as I can, about a few facts in connection with the dreadful and crushing charge against me—the charge of poisoning my husband and father of my dear children. I wish principally to refer to the fly-paper solution. The flypapers I bought with the intention of using the solution as a cosmetic. Before my

marriage, and since for many years, I have been in the habit of using this wash for the face prescribed for me by Dr. Graves, of Brooklyn. It consisted, I believe, principally, of arsenic, tincture of benzoin, elder-flower water, and some other ingredients. This prescription I lost or mislaid last April, and as at the time I was suffering from an eruption on the face, I thought I should like to try and make a substitute myself. I was anxious to get rid of this eruption before I went to a ball on the 30th of that month. When I had been in Germany among my young friends there, I had seen used a solution derived from fly-papers soaked in elder-flower water, and then applied to the face with a handkerchief well soaked in the solution. I procured the fly-papers and used them in the same manner, and to avoid evaporation I put the solution into a bottle so as to avoid as much as possible the admission of the air. For this purpose I put a plate over the fly-papers, then a folded towel over that, and then another towel over that. My mother has been aware for a great many years that I have used arsenic in solution. I now wish to speak of his illness. On Thursday night, May 9, after the nurse had given my husband medicine I went and sat on the bed beside him. He complained to me of feeling very sick, very weak and very restless. He implored me then again to give him a powder which he had referred to earlier in the evening, and which I declined to give him. I was over-wrought, terribly anxious, miserably unhappy, and his evident distress utterly unnerved me. As he told me the powder would not harm him, and that I could put it in his food, I then consented. My Lord, I had not one true or honest friend in the house. I had no one to consult, no one to advise me. I was deposed from my position as mistress of my own house, and from the position of attending on my husband, and notwithstanding that he was so ill, and notwithstanding the evidence of the nurses and the servants, I may say that he missed me whenever I was not with him ; whenever I was out of the room he asked for me, and four days before he died I was not allowed to give him a piece of ice without its being taken out of my hand. I took the meat juice into the inner room. On going through the door I spilled some of the liquid from the bottle, and in order to make up the quantity spilled I put in a considerable quantity of water. On returning into the room I found my husband asleep. I placed the bottle on the table near the window. As he did not ask for anything then, and as I was not anxious to give him anything, I removed it

from the small table where it attracted his attention and put it on the washstand where he could not see it. There I left it. Until Tuesday, May 14, the Tuesday after my husband's death, till a few moments before the terrible charge was made against me, no one in that house had informed me of the fact that a death certificate had been refused—or that there was any reason to suppose that my husband had died from any other than natural causes. It was only when a witness alluded to the presence of arsenic in the meat-juice that I was made aware of the nature of the powder my husband had been taking. In conclusion, I only wish to say that for the love of our children, and for the sake of their future, a perfect reconciliation had taken place between us, and on the day before his death I made a full and free confession to him."

It was evident from Sir Charles Russell's manner when he rose to make his final appeal that Mrs. Maybrick had made her statement against his wish, but he still fought valiantly in her cause, and urged that if it had not been for the act of infidelity on her part there could be no motive assigned in the case, and surely, he declared, there was a wide difference between the grave moral guilt of unfaithfulness and the criminal act involved in the deliberate plotting, by such wicked means, the felonious death of her husband. He closed his eloquent and brilliant appeal by putting two questions to the jury :—

1. Was there clear, safe and satisfactory unequivocal proof that death was in fact caused by arsenical poisoning ?

2. Had the accused woman administered that poison, if to the poison the death of her husband was due ?

On the eighth day of the trial the judge summed up the evidence and the jury retired at 3.15, and had barely been absent thirty-eight minutes when they returned to the court with the verdict of " Guilty."

On being asked by the clerk if she had anything to say, Mrs. Maybrick replied " I have been found guilty, but excepting my moral fault I am not guilty." The judge then passed sentence of death.

The sentence aroused considerable feeling and the country was divided into two parties, one protesting that Mrs. Maybrick

[*Copyright.*

BOTTLE OF MEAT JUICE AND A BOTTLE CONTAINING MEAT JUICE AND WATER EXHIBITED IN THE MAYBRICK CASE.

was innocent, and the other that she was guilty. An agitation was at once made for a reprieve, which ended in a respite being granted and the sentence being commuted to penal servitude for life.

For some years afterwards efforts were continually made to secure Mrs. Maybrick's release, and successive Home Secretaries investigated the circumstances of the case, but always decided the conviction must stand. Sir Charles Russell frequently affirmed his belief in Mrs. Maybrick's innocence, and attributed the jury's verdict to his remarks upon the moral aspect of the case, and even after he became Lord Chief Justice of England he stated his personal belief that she was not guilty.

The late Lord Moulton, who was an eminent scientist as well as a great lawyer, took a deep interest in this case, and in a letter to the writer, written in 1899, stated:

"The point of interest was one of evidence as to the cause of death. I have always been of opinion that—taking into consideration the fact that the deceased was an arsenic-eater—there was no evidence that he was poisoned. The weight of the medical testimony was in favour of that view, but that was not the main point. In my opinion the testimony for the prosecution entirely failed to support the onus which lay upon it. The witnesses could not point out anything inconsistent with non-poisoning."

"This case," says Sir William Willcox, "is interesting from the fact that the proof of fatal poisoning rested on the presence of 0·049 grain of arsenic in the liver, the minimum fatal dose being about two grains."

Whether Mrs. Maybrick did actually administer arsenic to her husband *with intent to kill him* she alone could tell. On her own confession she admitted having given him a certain white powder for which he craved, of the nature of which, however, she said she was ignorant. There can be no doubt this powder was arsenic. If she did not know the powder was arsenic and did not give it with intent to kill him, then surely such a web of circumstantial evidence has never before been woven round one accused of having committed a terrible crime.

CHAPTER X

THE LAMBETH POISON MYSTERIES

TOWARDS the close of the year 1891 and the early part of 1892, public interest was excited by the mysterious deaths of several young women of the "unfortunate class" residing in the neighbourhood of Lambeth. The first case was that of a girl named Matilda Clover, who lived in Lambeth Road. On the night of October 20, 1891, she spent the evening at a music-hall in company with a man, who returned with her to her lodgings about nine o'clock. Shortly afterwards she was seen to go out alone, and she purchased some bottled beer, which she carried to her rooms. After a little time the man left the house.

At three o'clock in the morning the inmates of the house were aroused by the screams of a woman, and on the landlady entering Matilda Clover's room, she found the unfortunate girl lying across the bed in the greatest agony. Medical aid was sent for, and the assistant of a neighbouring doctor saw the girl, and judged she was suffering from the effects of drink. He prescribed a sedative mixture, but the girl got worse, and, after a further convulsion, died on the following morning. The medical man whose assistant had seen her on the previous night, gave a certificate that death was due to delirium tremens and syncope, and Matilda Clover was buried at Tooting.

A few weeks afterwards a woman called Ellen Donworth, who resided in Duke Street, Westminster Bridge Road, is stated to have received a letter, in consequence of which she went out between six and seven in the evening. About eight o'clock she was found in Waterloo Road in great agony, and died while she was being conveyed to St. Thomas's Hospital. Before her death she made a statement that a man with a dark beard and wearing a high hat had given her "two drops

of white stuff " to drink. In this case a post-mortem examination was made, and on analysis both strychnine and morphine were found in the stomach, proving that the woman had been poisoned.

These cases had almost been forgotten, when some six months afterwards, attention was again aroused by the mysterious deaths of two girls named Alice Marsh and Emma Shrivell, who lodged in Stamford Street. On the evening of April 11, 1892, a man, whom one of the girls in her dying testimony called " Fred " and whom she described as a doctor, called to see them, and together they partook of tea. The man stayed till 2 a.m., and during the evening gave them both " three long pills."

Half an hour after the man left the house, both girls were found in a dying condition. While they were being removed to the hospital Alice Marsh died in the cab, and Emma Shrivell lived for only six hours afterwards. The result of an analysis of the stomach and organs revealed the fact that death in each case had been caused by strychnine.

There was absolutely no evidence beyond the vague description of the man for the police to work upon, and this case, like the others with which at first it was not connected, seemed likely to remain among the unsolved mysteries; when by the following curious chain of circumstances, the perpetrator of these cold-blooded crimes was at last brought to justice.

Some time after the deaths of the two girls Marsh and Shrivell, a Dr. Harper, of Barnstaple, received a letter, in which the writer stated that he had indisputable evidence that the doctor's son, who had recently qualified as a medical practitioner in London, had poisoned two girls—Marsh and Shrivell—and that he, the writer, required £1,500 to suppress it. Dr. Harper placed this letter in the hands of the police, with the result that on June 3, 1892, a man named Thomas Neill, or Neill Cream, was arrested on the charge of sending a threatening letter. He was brought up at Bow Street on this charge several times, during which it transpired that in the preceding November a well-known London physician had also received a letter, in which the writer declared that he had evidence to show that the physician had poisoned a Miss

Clover with strychnine, which evidence he could purchase for £2,500, and so save himself from ruin.

Neill Cream was remanded, and in the meanwhile the body of Matilda Clover was exhumed, and the contents of the stomach sent to Dr. Stevenson, one of the Government analysts, for examination. He discovered the presence of strychnine, and came to the conclusion that some one had administered a fatal dose to her.

An inquest was then held on the body of Matilda Clover, with the result that Thomas Neill, or Neill Cream, was committed on the charge of wilful murder.

The man's lodgings were searched after his arrest, and a curious piece of paper was discovered, on which, written in pencil in his handwriting, were the initials "M. C." and opposite to them two dates, and then a third date, viz. October 20, which was the date of Matilda Clover's death. On the same paper, in connection with the initials "E. S.," was also found two dates, one being April 11, which was the date of Emma Shrivell's death. There was also found in his possession a paper bearing the address of Marsh and Shrivell, and it was afterwards proved that he had said on more than one occasion that he knew them well.

In his room a quantity of small pills was discovered, each containing from one-sixteenth to one-twenty-second of a grain of strychnine, also fifty-four other bottles of pills, seven of which contained strychnine, a pocket medicine case, and a bottle containing one hundred and sixty-eight pills, each containing one-twenty-second of a grain of strychnine. These, it is supposed, he obtained as an agent for the Harvey Drug Co., of America. It was found he had purchased a quantity of empty gelatine capsules from a chemist in Parliament Street, which there is little doubt he had used to administer a number of the small pills in a poisonous dose.

Thomas Neill, or Neill Cream, was tried for the wilful murder of Matilda Clover at the Central Criminal Court before Mr. Justice Hawkins, on October 18, 1892, the trial lasting five days.

It transpired that Cream, who had received some medical education and styled himself a doctor, came to this country from America on October 1, 1891, and on arriving in London

[*Copyright.*

STETHOSCOPE AND POCKET MEDICINE CASE CARRIED BY NEILL CREAM.

first stayed at Anderton's Hotel, in Fleet Street. Shortly afterwards he took apartments in Lambeth, and became engaged to a lady living at Berkhampstead.

He was identified as having been seen in the company of Matilda Clover, and also by a policeman as the man who left the house in Stamford Street on the night that Marsh and Shrivell were murdered.

Dr. Stevenson, who made the analysis of the body of Matilda Clover on May 6, 1892, stated in his evidence that he found strychnine in the stomach, liver, and brain, and that quantitatively he obtained one-sixteenth of a grain of strychnine from two pounds of animal matter. He also examined the organs from the bodies of Alice Marsh and Emma Shrivell. He found 6·39 grains of strychnine in the stomach and its contents of Alice Marsh, and 1·6 grain of strychnine in the stomach and its contents, also 1·46 grain in the vomit, and 0·2 grain in a small portion of the liver of Emma Shrivell.

The jury, after deliberating for ten minutes, returned a verdict of guilty, and Thomas Neill, or Neill Cream, as he was otherwise known, was sentenced to death. He was executed on November 15, 1892.

CHAPTER XI

SOME POISON MYSTERIES IN FRANCE

FOR centuries past poison has played a prominent part in love intrigues which form so common a feature in French life. Such crimes are generally incited by jealousy or the desire to remove some obstacle that obstructs the path of the ardent lover. A typical case of this character and one which caused a great sensation at the time, occurred at Bordeaux in 1906, when Madame Canaby was tried for attempting to poison her husband. Monsieur and Madame Canaby were people of good position and well known in Bordeaux society. The arrest of the lady, therefore, caused considerable interest. The story is somewhat remarkable. Early in 1906 Monsieur Canaby was taken ill with influenza, and on the 27th of that month his cook called at a pharmacy in the city with a prescription which contained a large quantity of aconite and digitalin, two very powerful poisons. The prescription was signed by a "Dr. Gaube." The pharmacist, who happened to be the uncle of Madame Canaby, knew that his niece and her husband were friendly with Dr. Gaube, who lived some distance away from Bordeaux. His natural surprise at the large quantity of the powerful poisons ordered was somewhat allayed by a note which accompanied the prescription, stating that Dr. Gaube required the poisons for experimental purposes. M. Fouries, the pharmacist, then wrote a note to his niece, whom he had not seen for three years, explaining that although he had dispensed this prescription he could not in future deliver such dangerous drugs by a messenger. He further cautioned the servant, saying, "Be careful; there is enough there to poison thirty men!"

On May 1 M. Erny, the pharmacist who usually dispensed for Madame Canaby, received a prescription for one gramme

of digitalin, signed by Dr. Gaube, also accompanied by a note similar to that presented to M. Fouries. This was followed by another prescription on May 4 for one gramme of aconitine and five centigrams of digitalin. Five days afterwards a third prescription was presented for one gramme of potassium cyanide and one gramme of digitalin, both of which are extremely virulent poisons. The pharmacist's suspicions now being aroused, he refused to dispense the last prescription, and on May 11 he called on Dr. Guérin, whom he knew to be attending M. Canaby, and showed him the prescription. The following day Dr. Guérin called in four physicians, and after a consultation it was decided to remove M. Canaby to a private hospital under the charge of Dr. Villar. Here, carefully watched, M. Canaby gradually made some progress toward recovery.

Meanwhile, the doctors submitted the prescriptions to Dr. Gaube, who at once pronounced them forgeries and lodged a complaint with the Procureur of the Republic. A police inquiry followed, and a search was made in the Canabys' house, which resulted in the discovery of a large number of empty bottles which had formerly contained Fowler's Solution of Arsenic. An analysis being made of the hair of M. Canaby, it revealed the presence of arsenic to the extent of forty milligrams per kilo, and in hair from his beard twenty-six milligrams.

The arrest of Madame Canaby quickly followed, and she was committed for trial on the charge of attempting to poison her husband. The motive for the cause was assigned to an intimacy Madame had formed with a Monsieur Rabot, a friend of the family.

At the trial M. Canaby, still weak and ill, was brought to the Court and strongly affirmed his wife's innocence. He stated his belief that a discharged servant had by means of anonymous letters instigated the prosecution. He ascribed the presence of arsenic in his beard to patent medicines which he had been in the habit of taking in large doses. M. Rabot, whose intimacy with Madame Canaby had given rise to some scandal, denied that any improper relations existed between him and the lady. The onus of proving the case then rested with the medical men who had been in

attendance on M. Canaby. Beyond a few explanations, however, they declined to say anything, stating that they could not say more without betraying the secrets of their patients, which professional usage forbade.

The President of the Court informed Dr. Villar, the chief medical witness, that his refusal to speak would probably tell against the prisoner.

"I will ask her to release you from your pledge," continued the President.

"I want the truth to be told; I don't want anyone to keep silence on my account," broke in Madame Canaby.

"So now you can speak," remarked the President.

"Not at all," replied the doctor. "No one can release us from our pledge of secrecy, and certainly not Madame Canaby, who was not our patient."

"But every good citizen under pain of punishment is bound to disclose any criminal act that is known to have been committed by another," said the President sharply.

"On the contrary," replied the witness, "the law punishes those who violate professional secrecy and did so recently in Paris. Even if we know an accused person guilty, we would refuse to speak."

For the defence, evidence was adduced that M. Canaby was in the habit of taking a certain patent medicine that contained arsenic. Of the three experts who were called to give an opinion on the writing of the prescriptions, one declared the writing resembled that of M. Rabot, while the others averred that it was unquestionably that of Madame Canaby, who had attempted to disguise her hand.

Madame herself declared that the poisons when received had been handed to her by a fair young man, who came presumably from Dr. Gaube, but as to his identity she could trace nothing.

In the end, Madame Canaby was acquitted on the charge of attempting to poison her husband, but was found guilty of forging medical prescriptions, by which poison was fraudulently obtained by her. For this she was sentenced to fifteen months' imprisonment and a fine of a hundred francs.

Another strange case, the motive for which can only be assigned to a disordered brain, happened in Varennes, a village

near Saint Amand-Montroud. In April, 1905, a well-to-do farmer named Gilbert died suddenly, and six months afterwards his wife expired in a similar manner. In September of the following year, another farmer in the same district, called Renaud, died very suddenly, and within a month his wife succumbed to a mysterious illness. In the meantime, one of their farm labourers also died from an unexplained cause, and a young man, who was steward of a neighbouring château, together with his little daughter, was likewise fatally attacked. No suspicions of foul play were apparently aroused until a considerable time afterwards, when Madame Pallot, a villager, found a small cheese on her window-sill, which she took to be a present from a neighbour. She ate some of it with her lunch, and in less than three hours she was dead.

The origin of the cheese, which on analysis proved to be strongly impregnated with arsenic, was traced to a young married woman named Jeanne Gilbert, the daughter of the farmer Renaud and the daughter-in-law of M. and Mme Gilbert, all of whom had died in a similar manner. She was arrested and charged with the murder of Madame Pallot.

M. Bouillot, a pharmacist of Saint Amand, was able to prove from his poison register that Jeanne Gilbert had bought arsenic by the half pound from him, stating that she required it for poisoning rats on the farm, and she might have had two pounds of the poison in her possession at one time. Jeanne at first stoutly denied that she had purchased the arsenic, and declared she did not even know the pharmacist. Even when confronted with the *juge d'instruction* she continued her denials, but the pharmacist had been careful to make her sign his register on the occasion of each purchase. The judge required her to sign her name, with the result that the identity of the writing was at once established.

When compared, the dates of sales and the deaths of the woman's relatives practically corresponded. She subsequently admitted the purchases of the arsenic, but adhered to her original assertion that she used it for destroying rats. Altogether, it is suspected that Jeanne Gilbert poisoned no fewer than eleven persons.

The most extraordinary feature of the case was that she appeared to have no possible motive for committing these

terrible crimes, as she was comfortably settled in life. Her parents were in good circumstances, and she could expect no advantages to accrue from their deaths, or that of her future mother-in-law and the other persons she is believed to have poisoned. The only explanation offered is the statement of her husband that her mind may have been affected by an illness after which he had noticed that she sometimes acted strangely.

A more recent case which excited great interest throughout France was that of Henri Girard, who died in prison while awaiting trial. About 1909 this individual, who passed as an insurance agent, was living at Montreuil-sous-Bois. Well educated, of good appearance, and apparently a cultured man with a leaning towards music, literature and science, he soon become popular among a wide circle in the district in which he lived and also in Paris. Among his acquaintances was a wealthy man named Pernotte, who after some persuasion consented to have his life insured in two different companies for a total sum of £8,400, which was to be payable to Girard in case of Pernotte's death.

A short time afterwards all the members of Pernotte's family were stricken with typhoid fever, but in the course of time they recovered and went away for a holiday. On their return, however, as M. Pernotte was still feeling weak, his friend Girard, who claimed to have some medical knowledge and was interested in science, gave him a hypodermic injection which he said would speedily put him on his feet again. Pernotte died soon afterwards, and the physicians who examined the body declared that death resulted from poisoning.

Girard, it was afterwards discovered, made an entry in his diary at this time as follows: "Poisons; prepare bottle, tubes, rubber gloves; buy microbe books."

Police inquiries were set on foot and disclosed the fact that Girard at this time was studying bacteriology, and had actually bought cultures of typhoid bacilli, and a selection of toxic organisms and poisons were found at his house.

Meanwhile Girard calmly took possession of the £8,400 for which he had insured the life of M. Pernotte.

He appears to have been a man possessed of the most extraordinary power of attraction for both men and women; his manners are said to have been charming, and the courtly

tone of his conversation gave him the name among his acquaintance of "Gentleman Girard."

Once his intimate friends came within the sphere of his magnetic personality they seem to have surrendered their wills entirely to his.

In 1913 he became very friendly with a M. Godel, and the latter agreed, at the suggestion of Girard, to take out a joint life insurance for £8,000. In case of the death of one, the money was to go to the survivor. M. Godel after lunching one day with Girard was taken ill with typhoid fever; he eventually recovered, but becoming suspicious, he refused to see Girard again, to which decision he no doubt owed his life.

Girard was mobilized during the war and served in the automobile service in Paris where he made the acquaintance of a soldier called Delmas. Delmas became very friendly with Girard, and, after having signed bills in favour of the insurance agent, also took ill and developed typhoid fever. He was sent, however, to a military hospital and recovered.

It is stated that Girard was experimenting with micro-organisms and had bought quantities of typhoid cultures from wholesale druggists. At this time, too, he fitted up a bacteriological laboratory in the house of a woman with whom he lived at Neuilly.

Finding that his efforts in using pathogenic organisms had proved so uncertain in effects, he next turned his attention to the study of poisonous fungi, and used the resulting poison on his next victim, a M. Duroux, a post office employee, whose life, as in the previous cases, he had insured for a large sum without the latter's knowledge.

Having invited him to dine at his house, it was said that he took the opportunity of placing the poison in his food. The servants, it is alleged, were told not to wash up, and they say that Girard and one of his mistresses washed the plates and knives and forks in a bath full of antiseptic solution. Duroux, however, was none the worse. Girard's notebook at this time shows the following entry: "Mimiche Dinner—mushrooms," opposite the dates May 10 and 11, 1917. The dinner took place on May 14. In December of the same year Duroux twice went to a café with Girard and each time was taken violently ill afterwards.

The next victim was a Madame Monin, a widow, with whom Girard became very intimate. Having taken out four insurance policies on her life, he then decided to poison her. He persuaded her to come to the house of his future wife, a Mlle Drouhin, to see some hats, and while Mme Monin was so engaged, Girard offered her some refreshment and wine was brought into the room. The hat having been selected, the lady partook of a glass of wine handed to her by Girard, which is said to have contained a poison he had prepared from fungi specially for this purpose.

It acted very rapidly, as the unfortunate lady was taken ill in the street almost directly afterwards, and after being taken by two policemen to her home, she died three hours later. A post-mortem examination revealed the fact that she died from mushroom poisoning. Girard, however, was bold enough to make a claim on the insurance policies, but owing to the refusal of one of the companies to pay £400, the amount of one policy which he had taken out with them on the life of Mme Monin, he was arrested.

It was then discovered that two other insurance companies had already handed over to Girard or his accomplices over £800 without inquiries. Girard, as agent, having secured the business in each case, had according to custom been paid the first premium as his commission.

After his arrest, on his house being searched, in his laboratory, which was completely equipped, were found a considerable number of poisons and a number of glass jars containing typhoid cultures and other organisms. Inquiries revealed other mysterious cases on which Girard had operated back to 1913, and brought to light another, of a man whom he had invited to dinner and who had died after drinking an apéritif which had been offered to him by Girard.

The preliminary legal investigation into this remarkable series of crimes lasted nearly three years, and in the end Girard was sent before the Chamber of Criminal Indictment, but before the trial took place at the Paris Assizes death had cheated the guillotine. Girard died in prison after he had made, it is said, a full confession of his crimes.

CHAPTER XII

THE HORSFORD CASE

TOWARDS the close of the year 1897, a widow, called Mrs. Holmes, was living with her three children at Stonely, near Kimbolton. She had a cousin named Walter Horsford, a well-to-do young farmer who occupied a farm at Spaldwick, about twelve miles away, and who frequently came to Stonely to visit her.

A romantic attachment eventually sprang up between them, which resulted in a too intimate acquaintance.

After a while Horsford's affection began to wane, and in the end he married another lady. Shortly afterwards Mrs. Holmes left Stonely and took up her residence at St. Neots.

About December of the same year she wrote a letter to Horsford, informing him of her condition, a piece of news which appears to have greatly upset him, as he was in fear the information might reach his wife.

On December 28 he called at a chemist's shop in Thrapstone, a neighbouring town, and asked for a shilling's worth of strychnine, some prussic acid, arsenic, and carbolic acid, which he stated he required for poisoning rats. The chemist, to whom he was a stranger, requested him to bring a witness, which he did, and the chemist's poison register was duly signed by Horsford and a man who introduced him. He took the poisons, which consisted of ninety grains of strychnine, one pound of arsenic, and some prussic acid and carbolic acid, away with him.

About a week afterwards Mrs. Holmes received a letter from Horsford. It was taken in by her daughter, who recognized his handwriting, and the envelope is also supposed to have contained two packets of strychnine.

On the evening of January 7, 1898, Mrs. Holmes retired to

bed, apparently in her usual health, about half-past nine. The only other persons in the house were her daughter Annie, her son Percy, and her infant. The daughter noticed that her mother took a glass of water upstairs with her, which was an unusual circumstance. On going to her mother's bedroom shortly afterwards, she found her suffering great pain, and she saw the glass, now almost empty, standing on a chest of drawers.

Percy Holmes ran out and called in the assistance of some neighbours, and then went for a doctor. When medical aid arrived, the unfortunate woman was in convulsions and died shortly afterwards.

The day after her death the police searched the house, but failed to find any trace of poison, and an inquest was held on January 8, which Horsford was summoned to attend.

In his evidence before the coroner, he swore that he had neither written to nor seen the deceased woman. The medical evidence proved that death was caused by strychnine.

The inquest was adjourned for a week, and in the meanwhile Mrs. Holmes was buried. From information received by the police, a further search was made in the house, with the result that two packets were discovered under the feather bed in Mrs. Holmes's bedroom. One packet of buff-coloured paper was found to contain about thirty-three grains of strychnine in powder, on which was written the words, "One dose. Take as told," in Horsford's handwriting. On the second packet, the contents of which had been used, was written, "Take in a little water. 'Tis quite harmless. Will come in a day or two." This was also in Horsford's writing. A letter was also found downstairs, presumably from Horsford, saying he would come over on Friday to make arrangements, and that he did not wish to write any more letters, as he did not want his wife to know.

On January 10 Walter Horsford was arrested on the charge of perjury committed at the inquest, and it was resolved to have another examination made of the body of the deceased woman. On examination of further documents and letters discovered by the police, the charge of wilful murder was added to corrupt perjury against Horsford, and he was committed for trial.

The trial began on June 2, 1898, at Huntingdon, before Mr. Justice Hawkins, and lasted five days.

Evidence was given by Dr. Stevenson, scientific analyst to the Home Office, who stated that he had received and analysed the contents of the stomach of the deceased woman. He extracted 1·31 grains of strychnine, which was a dose fatal to an adult. He detected no other poison. The buff-coloured paper marked "One dose. Take as told," contained 33¾ grains of strychnine, and the other paper which presented the appearance of having had the powder shaken out, had a few minute crystals of strychnine adhering. In each case it was the pure alkaloid.

On January 26 he made an examination of the exhumed body of Mrs. Holmes. The fingers and lower limbs were rigid. This was an unusual condition nineteen days after death. He had observed one case like it before, and that was the case of Matilda Clover, who was poisoned by Neill Cream. He removed the brain, spinal cord, heart, lungs, spleen and both kidneys and found strychnine in all the organs analysed. There was no appearance of disease in the vital organs. There could not have been less than 7 grains taken, more likely 10 or 12 grains. 1·31 grain would be an absolutely fatal dose for an average adult. In cases of strychnine poisoning, death occurs about half an hour after the beginning of the symptoms, and they come on about twenty minutes after the poison has been taken. Six hours is the extreme limit. The mind of a person suffering from strychnine poisoning would be very apprehensive of death. Death was caused in one of two ways—suffocation, by the muscles of the chest becoming fixed, or after a spasm of exhaustion. He could imagine no more terrible death.

He had examined some Dover's Powder found in the work-box of Mrs. Holmes, but found no trace of strychnine.

He further stated that if strychnine were poured off a paper he would expect to find a few crystals adhering to the surface of the paper. If a person took strychnine in water the greater part would go down to the bottom of the glass as sediment. What was drunk would be the portion floating on the top.

Mr. Anderson, the medical practitioner called in to attend Mrs. Holmes, described her condition when he saw her. His

opinion was that she was suffering from tetanus caused by strychnine poisoning. The convulsions were of a tetanic character and the spasms succeeded each other in rapid succession.

A specialist in handwriting was then called, who said that having compared the letter from Horsford in which he spoke about the "arrangements" with the two papers marked "Take in a little water. 'Tis quite harmless" and "One dose, take as told," he came to the conclusion they were in the same handwriting, and in his opinion the handwriting was natural and there had been no attempts to disguise it.

Mr. Wild, for the defence, said there was no proof that the prisoner administered the poison and there was no motive for the crime. What evidence was there that the prisoner ever sent poison to the deceased? Everything in the case, he contended, depended upon the handwriting, and he urged that some of the handwriting produced as that of the prisoner was utterly unreliable.

The judge, in summing up, told the jury that if anyone wilfully caused another to take a deadly poison, whether intending to kill or not, and death resulted thereby, it was murder.

The question of handwriting was of vital importance, and it had not been shown that there was any single other soul in the neighbourhood who was interested in the deceased woman's death, or who wrote in a hand like that of the prisoner. He enjoined them to remember these things and to deal with the case according to the evidence, and return the verdict which the evidence compelled them.

The jury returned at 1.20 p.m., after deliberating for twenty minutes, with a verdict of "Guilty," and sentence of death was passed.

Horsford was hanged at Cambridge Gaol on June 28, 1898, and before he died made a full confession of his crime.

CHAPTER XIII

AMERICAN POISON MYSTERIES

ONE of the most carefully planned murders by means of poison in modern times was investigated at the trial of Roland B. Molineux, who was charged with causing the death of Mrs. Catherine J. Adams in New York in 1899.

On November 10, 1898, Mr. Henry C. Barnett, a produce broker, who was a member of the Knickerbocker Athletic Club, one of the most prominent social organizations in New York, received by post at the club a sample box of Kutnow's Powder. He was in the habit of taking this and similar preparations for simple ailments, and soon after receiving the box he took a dose of its contents. He became ill immediately afterwards, and was thought to be suffering from diphtheria. That he had a slight attack of this disease there is little doubt, as the fact was proved from a bacteriological examination made by his medical attendant. He left his bed earlier than the doctor advised, and died presumably of heart failure.

The contents of the box, however, were examined, which led to the discovery that the powder had been tampered with and mixed with cyanide of mercury, and although Mr. Barnett had died from natural causes, it seemed clear that an attempt had been made to poison him by some one who knew he was in the habit of taking this powder. The investigation, however, does not appear to have been carried further.

The next chapter in the story occurred in connection with a Mr. Harry Cornish, who occupied the position of physical director to the Knickerbocker Athletic Club.

A day or two before Christmas in the same year, a packet directed to him was delivered by post at his address. It contained a box in which, on opening, he found at one end a

silver article for holding matches and toothpicks; at the other end was a bottle labelled "Emerson's Bromo-seltzer," and between the two was packed some soft tissue paper.

Mr. Cornish was at first under the impression that some one had sent him the packet as a present. After removing the articles from the box, he threw it and the wrapper into his wastepaper basket, but on second thoughts he cut the address from the wrapper and kept it.

The bottle, labelled "Bromo-seltzer," which is a saline preparation well known in America, was sealed over the top and bore the usual revenue stamp. After tearing off the outside wrapper, Mr. Cornish placed the bottle and the silver holder on his desk.

On the following Sunday he remarked to his aunt, Mrs. Catherine Adams, that he had received a present. Mrs. Adams and her daughter, Mrs. Rogers, joked him about it, saying he must have some admirer, and was afraid to bring his present home, as the sender's name was probably on it. On Tuesday night Mr. Cornish took the bottle and the silver holder home with him, and presented them to Mrs. Rogers, saying they were no use to him and she might have them.

The next morning Mrs. Adams complained of a headache, and her daughter suggested a dose of the Bromo-seltzer. Mr. Cornish was present, and mixed a teaspoonful of the preparation from the bottle with a glass of water, and gave it to his aunt. After drinking it she at once exclaimed, "My, how bitter that is!"

"Why, that's all right!" said Mr. Cornish, as he took a drink from the glass.

A few moments afterwards Mrs. Adams collapsed, and died within a short time. Mr. Cornish was seized with violent vomiting, which doubtless saved his life, and he recovered.

A post-mortem examination revealed the fact that Mrs. Adams had died from cyanide poisoning, and on the bottle of Bromo-seltzer being analysed the contents were found to have been mixed with cyanide of mercury.

For a long time the affair seemed a complete mystery, and the police investigations appeared likely to be fruitless. Then the particulars of the death of Mr. Barnett, who was Chairman

of the House Committee of the Knickerbocker Club, were brought to light ; and connecting them with the fact that Mr. Cornish was also a prominent member of the club, and had received the bottle of Bromo-seltzer by post in the same manner, it seemed highly probable that both the poisoned packets which contained cyanide of mercury had been sent by the same person.

Further examination proved that the bottle used was not a genuine Bromo-seltzer one, and that the label had been removed from a genuine bottle and carefully pasted on that sent to Mr. Cornish.

A firm of druggists in Cincinnati then came forward and stated that, as far back as May 31, 1898, they had received a written application signed " H. C. Barnett " for a sample box of pills, and another similar application on December 21, 1898, which was signed " H. Cornish."

Both these applications were found to be in the same handwriting, which was also strikingly similar to the address on the packet sent to Mr. Cornish, which he had fortunately kept. The address given by the applicant who called himself " H. C. Barnett," was 257, West Forty-second Street, New York, a place where private letter-boxes are rented for callers. The address given by the applicant signing himself " H. Cornish," was a similar place at 1,620, Broadway, in the same city. From these facts it seemed evident that an attempt had been made to poison both Barnett and Cornish by some one who knew them, and the poisoner had concealed his identity by employing the names of his intended victims.

The nature of the poison used, cyanide of mercury, was also a slight clue, as it is a substance which is not used in medicine and must in all probability have been specially prepared for the purpose by some one with a knowledge of chemistry.

At the coroner's inquest, which began on February 9, 1899, certain facts were elicited that tended to bring suspicion on Roland B. Molineux, who was also a member of the Knickerbocker Club and well acquainted with Barnett and Cornish. He was also known to have quarrelled with the latter. At the close of the inquest Molineux was arrested and removed to the Tombs prison.

Owing to legal technicalities in the original indictment, which charged him with the murder of both Mr. Barnett and Mrs. Adams, he was twice liberated, and then for the third time arrested.

The trial of Molineux for the murder of Mrs. Adams was a memorable one, and lasted nearly three months. It began on November 14, 1899, at the Central Criminal Court, New York, and was not concluded till February 11, 1900.

The evidence was entirely circumstantial. Most of the experts in handwriting who were examined declared that the address on the packet sent to Mr. Cornish was in Molineux's handwriting, and that he had also written both applications to the druggists in Cincinnati. Further, Molineux was engaged as a chemist to a colour factory in which cyanide of mercury was used, which would enable him either to make or procure that special poison, from which only three other fatal cases had been recorded.

No witnesses were called for the defence, and the jury found Roland B. Molineux guilty of "murder in the first degree," which, according to American law, is murder with premeditation.

In January, 1911, a mysterious case that for some time baffled the united exertions of the police occurred in Cumberland, Maryland, U.S.A. On Christmas Eve of 1910, the night before their wedding, a Mr. Trigg and Miss Grace Loeser, who were well known in Maryland, were found sitting together in an upright position on a sofa in the drawing room of Miss Loeser's home, both apparently dead. An hour before they were thus discovered, Mrs. Loeser had seen them sitting exactly in the same position, full of life and animation and talking over the arrangements for their wedding on the following day.

Returning an hour later, she found them still both sitting in the same position but lifeless. Nothing was found in the room to indicate the cause of death.

Before the ghastly discovery Mrs. Loeser had heard them laughing and talking in the drawing-room; then she heard the telephone bell ring, and heard her daughter go to it and speak to a friend at the other end of the wire about the final arrangements for the wedding.

A doctor who was immediately summoned and examined the bodies, noticed that the lips of both the man and the woman were burned, and in the mouth of the man was found a piece of chewing-gum, which he believed might contain poison. According to the doctor, Mr. Trigg had apparently taken poison and then kissed his fiancée and poisoned her in doing so.

A post-mortem examination was held and revealed traces of potassium cyanide in the organs of both young people, but how the poison came to be swallowed there was nothing to indicate, beyond the fact that the tongues of both were burned and there was a larger quantity of the poison found in the stomach of Trigg.

The chewing-gum habit is very common in America and a package of it with one stick missing and the wrapper on the floor, was found in Mr. Loeser's bedroom. The questions that arose were : was the chewing-gum the cause of death, and had they divided the one stick missing from the packet between them, and if the gum was poisoned why had they thus decided to take their lives ?

Mrs. Loeser protested against the theory of suicide as being beyond all reason, as both young people were absolutely devoted to one another and had never even quarrelled.

A younger sister of Miss Loeser's, to whom Mr. Trigg is said to have first paid attentions before he became engaged to Grace Loeser, in giving evidence said that she also had symptoms of cyanide poisoning. She was upstairs when Trigg came to the house that afternoon, and the first she knew of the tragedy was her mother screaming. She swore that she had no poison in her possession, and had never heard of hydrocyanic acid before her sister's death.

Mrs. Loeser when brought to the court to give evidence, was practically in a state of collapse, but she swore that no poison of any kind was kept in the house and that both her daughters were on friendly terms.

Dr. Foard, the medical man first called in, described how he found the young couple sitting upright together on the sofa ; the woman was breathing stertorously, with her teeth clenched and the pupils of her eyes dilated. A slight froth issued from her lips, all of which, said the doctor, were symptomatic of hydrocyanic acid or cyanide poisoning.

Dr. Broadrup, another medical practitioner, corroborated Dr. Foard's statements. When he visited the house he was called upstairs to see Miss May Loeser, who was in her room, and when he got there he found the bedroom was full of a strong odour of gas.

The evidence went to prove that Trigg at the last moment did not wish to carry out the marriage with Miss Loeser, and it was suggested that he may have poisoned her with the chewing-gum, only swallowing a small portion himself in the belief that he would easily have survived the effects.

At the coroner's inquiry, it was stated that cyanide of potassium was found in the chewing-gum, and the jury returned a verdict that both persons had died of cyanide poisoning "administered in an unknown manner."

Another mysterious case which aroused great interest in America, concerned the death of a millionaire pork-packer, and the arrest of his wife, on the charge of attempting to murder her husband.

This lady is said to have begun life as a country waif; at the age of twenty she became a waitress and married the man whom she was accused of attempting to murder. It appears that the marriage was bitterly opposed by the husband's family on account of her social position, which placed a stumbling-block between them and the position they aspired to attain, and since the marriage her brother-in-law was said to have been her greatest enemy.

It was alleged, that the wife not only made her husband ill by giving him small doses of poison by placing it in his medicine, but also in the water that she gave him to drink during the night in his sick-room.

The chief witness against the accused was the nurse who attended her husband during his illness. She said that despite the wife's lowly origin she was greatly beset by social ambitions. She wished to shine in the best Virginia society, and her husband stood in the way. She had always showed considerable animus against her husband's family, and told the nurse that when he died, she was to search his pockets and get the keys, especially those of his despatch box, as she did not want the family to get them.

The nurse said the accused consulted two fortune-tellers, and informed her, that both of them told her that her husband could not live until Christmas. She showed little attention to him while he was ill, and he had complained to her that the water given to him to drink had an unusual taste; he said it made him sick, and when she drank a glass of the water in the room, to see if it was all right, she too became ill.

Suspicions being aroused, the sick man was removed to a hospital, which his wife declared was a plan of the family to get her husband out of her influence.

According to the prosecution, the wife's motive for getting rid of her husband was her admiration for a shop-assistant in the town in which they resided, and this man was called as a witness for the prosecution. From his account the lady must have conceived an extraordinary infatuation for him, loading him with presents such as fur-lined coats, silver cigar boxes, embroidered vests, dressing-gowns and other things of considerable value.

It transpired later that, owing to the suspicions of the family, they arranged for a female detective to be employed in the house as a nurse. This person was instructed to win the confidence of the wife and endeavour to find out what was wrong.

At the trial she declared, that while in the house the accused had offered her a thousand pounds to give her husband a poisoned pill. She also stated that the accused frequently cried and made no secret that she wished "that man would die," and declared again and again, every time she received news from the bedside that he was worse, that she was the happiest of women and prayed night and morning that she should be awakened in the morning by a telephone call announcing that her husband was dead.

She once asked her, "How much would you take to do it?" "I told her," continued the detective, "that I was a poor woman, but said I would do it for a thousand pounds if she prepared the poison." She replied, "I haven't a thousand pounds, but I could get the poison, and if you will give it to him I will give you two hundred pounds in cash, and when he is dead and the estate comes to me I will give you the other eight hundred."

The detective said she agreed to this but insisted on a promise in writing, so that she could demand the eight hundred pounds afterwards. The accused said she would be afraid to give anything in writing, for it might fall into the hands of her brother-in-law and would certainly delight him, but she afterwards promised to do so and said, " I will get the poison and I will meet you outside the hospital at eleven o'clock to-morrow morning and bring it with me. You are on night watch and you can put it in his medicine when he is half asleep ; or if you don't want to do that, just leave his medicine by the bedside and tell him when the time comes to take it. He will take the poison himself." She asked her to let her know the instant her husband died, so that she could get possession of her husband's body.

A doctor who was called, stated that the accused had bought an ounce of sugar of lead from him, and afterwards came to him for a solution of arsenic, which he refused.

For the defence, counsel asserted that the husband had suffered from severe pains for some months and called in his medical man, who said that his condition was consistent with ptomaine poisoning.

After a trial lasting more than a fortnight the jury considered for over twenty-four hours, but were unable to agree ; they were then discharged, and the case collapsed.

CHAPTER XIV

THE SOUTHWARK POISON MYSTERY

IN the last week of July, 1902, a girl named Maude Marsh, about twenty years of age, was admitted as a patient into Guy's Hospital suffering from internal inflammation and vomiting. She was placed under treatment, and in a few weeks' time her condition so improved that she was discharged from the institution. She was employed as a barmaid at The Crown, a licensed house in the Borough High Street. There she passed as the wife of the proprietor, with whom she lived. About a month after her return to The Crown she was again seized with a similar illness, and was attended by a local medical practitioner and also seen by a medical man from Croydon who had visited her at her father's request. The former was told by the sick girl that the doctor at Guy's Hospital thought she was suffering from peritonitis, but after visiting her several times he came to the conclusion she was suffering from inflammation of the stomach and bowels. On calling to see his patient on the afternoon of October 22, the doctor was told she had died two or three hours earlier. He refused to give a certificate and insisted on a post-mortem examination. The examination failed to reveal the cause of death, and the doctor removed certain internal organs and submitted them for analysis. In consequence of the report he received, he then communicated with the police.

On October 25 South London was gaily decorated in honour of the State procession of the King and Queen, and the streets were thronged with people. Shortly before the royal procession was due to pass through the Borough High Street, two detectives entered The Crown public-house, which was festooned with flags, and passed into the bar. A notice

on the wall announced seats to let to view the pageant, and the windows were already filled with sightseers, who took no notice of the two men who had entered so quietly.

Behind the bar was the landlord, a small, dark-complexioned man with prominent cheek-bones and sallow skin.

"Are you George Chapman?" asked one of the detectives.

"Yes," was the reply.

"I am an inspector of police and wish to speak to you quietly."

Chapman motioned the detectives towards the billiard-room at the rear and the three men entered together.

"Maude Marsh, who has been living with you as your wife, has been poisoned with arsenic," said Detective-Inspector Godley at once.

"I know nothing about it; I do not know how she got the poison. She has been in Guy's Hospital for the same sort of sickness," replied Chapman.

Chapman was asked to accompany the inspector to the police station, where he was detained pending inquiries, and at 10.15 that night he was formally charged with the wilful murder of Maude Marsh.

When the accused man quietly took his place in the dock at the police court the following morning, no one could imagine that the curtain was about to be withdrawn from a series of murders which for sheer heartlessness are almost unprecedented in the annals of crime.

The only witness was Inspector Godley, who gave but sufficient evidence to obtain a remand pending the inquest. He stated that from inquiries he had made, he had found that Chapman was the only person who had fed the girl, and that he would not allow anyone else to give her food or to go into the kitchen when it was being prepared. He found five books, all dealing with medicine, in the possession of the accused, and also some white powders which had not yet been analysed. Arsenic, however, had been discovered in a portion of the viscera which had been removed from the body of Maude Marsh at the time of the post-mortem. The doctor who had attended Chapman's former wife during her fatal illness had been called in to attend Maude Marsh, and he had noticed

that both women had displayed the same symptoms. Chapman was then remanded.

Meanwhile, a further examination of the body was made by Dr. Stevenson, the official analyst to the Home Office, the result of which was given at his next appearance before the magistrate. He stated that he found no evidence of natural disease to account for death.

"Was arsenic suggested to you as the cause of death?" asked the solicitor who prosecuted on behalf of the Treasury.

"Yes, but I suggested to the other doctors present I did not think arsenic had been the cause," replied Dr. Stevenson. "I attributed it to another metallic poison, antimony, which I found in the stomach and its contents, the liver, the spleen, the kidneys, the brain and elsewhere in the following quantities :—

Metallic Antimony

In the stomach	0·23 grains.
,, ,, abdomen	5·99 ,,
,, ,, liver	0·71 ,,
,, ,, kidneys	0·14 ,,
,, ,, brain	0·17 ,,
Total	7·24 grains.

Tartar Emetic.

In the stomach	0·64 grains.
,, ,, abdomen	16·64 ,,
,, ,, liver	1·98 ,,
,, ,, kidneys	0·39 ,,
,, ,, brain	0·47 ,,
Total	20·12 grains.

"In every organ and tissue that I examined I found some antimony," added Dr. Stevenson.

He further stated that two grains of antimony had been known to produce fatal results in a very weak person, but in the case of an ordinary person, fifteen grains would kill. In the case of repeated doses three grains taken at a time might be expected to result in death. From the position of some of the antimony he thought a dose was taken within a few hours of death. Dr. Stevenson said he received from the police over thirty articles, including pills and ordinary medicines,

and analysed them, but found neither arsenic nor antimony in any but one. This bottle was apparently empty when he received it, but he found there were a few drops of a liquid in it and looking into it he saw a little bit of white powder sticking to the side. He rinsed the bottle out with water and then analysed it and found the water contained both bismuth and antimony.

At this stage the case was adjourned; meanwhile the coroner's inquest on the body of Maude Marsh was concluded, which resulted in a verdict of wilful murder against Chapman.

When he was brought before the magistrate for the tenth time on December 31, 1902, the Counsel for the Treasury had the sensational announcement to make that Chapman had since his last appearance been further charged with the murder of two other women, viz. Mary Isabella Spink (or Chapman) on Christmas Day, 1897, and Bessie Taylor (or Chapman) on February 13, 1901.

These two women, said the counsel, had lived with him for some time prior to their deaths. It had also been discovered that the prisoner's real name was Severino Klosowski, and that he had assumed the name of George Chapman since coming to live in England. He was a Polish Jew and had studied medicine and surgery in Warsaw.

The story of Klosowski's life is an extraordinary one. He was born in 1865 and educated at a military school in Poland. Afterwards he became a male nurse in a hospital at Warsaw and learned something of medicine. In 1888 he emigrated to England and obtained work in a small barber's shop in Whitechapel Road, London. After he had been in London about twelve months, he married a woman named Lucy Baderski, who was then living. At one time they went to America, but she returned alone, and does not appear to have lived with him again.

In 1895 he left Whitechapel and was next heard of in a barber's shop at Tottenham, where he was recognized by a hairdresser's traveller who had known him in Warsaw. He next started a small shop on his own account, and at this time was living with a girl called Annie Chapman, whose name he afterwards adopted. His business failing, he again took a situation in Church Lane, Leytonstone, where he earned

thirty shillings a week. While living at Leytonstone in 1895 he became acquainted with a Mrs. Spink, whose husband deserted her. Klosowski, or Chapman, as he now called himself, became on intimate terms with Mrs. Spink, and after a time he informed a Mr. Ward with whom he lodged that he and Mrs. Spink were going to be married. One day in October, 1895, they went out, and on their return stated that the wedding had taken place, and afterwards lived together as husband and wife.

Mrs. Spink had about £560, which was vested in a trust deed, and while she lived with Chapman some £250 had been advanced to her by the trustee. In 1897 the balance was handed over to the couple and they left London for Hastings, where Chapman purchased a barber's business in George Street.

About February, 1897, Chapman's affection for his wife seemed to wane, as he is said to have treated her cruelly, and she complained of his treatment to people they knew. Then she became ill, suffering from irritation of the stomach, which resulted in great weakness and depression. In April of that year Chapman is known to have purchased an ounce of tartar emetic (tartarated antimony) from a chemist in Hastings. In August they left Hastings and took a beerhouse called The Prince of Wales in Bartholomew Square, St. Luke's, London. Mrs. Chapman, who had been better for a time, again became ill with the same symptoms, and her husband is said to have recommenced his ill-treatment of her. As she grew worse, a Dr. Rogers was called in to see her. Here a Mrs. Doubleday came upon the scene, and she noticed that Chapman frequently felt his wife's pulse, and was much occupied in consulting medical books. He prepared her food and also her medicine, sending every one out of the room while he did it. She suffered terrible pain with vomiting and diarrhœa and finally died on Christmas Day, 1897. The doctor appears to have had no suspicion of poison and gave a certificate that the cause of death was phthisis.

After her death Chapman advertised for a barmaid and eventually engaged a woman named Bessie Taylor in that capacity. She came from Cheshire and had been in a situation as housekeeper at Peckham before coming to Chapman at

Easter in 1898. She told a friend she was going to be married before going to live with Chapman at The Prince of Wales. In August, 1898, they left London and went to live at Bishop Stortford, where Chapman took an inn called The Grapes. In March, 1899, the couple again returned to London, Chapman first becoming tenant of The Monument, a public-house in Union Street Borough, and afterwards removing to The Crown in High Street. A Miss Painter, a friend of Bessie Taylor's, who called to see her at The Crown, noticed that Chapman treated her with indifference and once even threatened her with a revolver. Calling to see her on another occasion some time later, Miss Painter found she was very ill and was troubled with persistent vomiting. Chapman attended to her, cooking her food and feeling her pulse.

In January Dr. Stoker, a local practitioner, was called in to see the sick woman, and he attended her until her death in February, 1901. The doctor had no suspicion she had been poisoned and certified the cause of death as intestinal obstruction, vomiting and exhaustion. The bodies of both women were exhumed under an order from the Home Secretary, and an analysis was made in each case by Dr. Stevenson.

The analysis of various organs removed from the body of Mary Isabella Spink revealed the presence of antimony in all the viscera examined :—

In the stomach . . .	0·08	grains
„ „ intestines . .	1·15	„
„ „ liver . . .	2·42	„
„ „ kidneys . . .	0·18	„
Total	3·83	grains of tartarated antimony

Dr. Stevenson remarked on the amazing preservation of the body after being interred for five years. He found the head and features were so well preserved that they were as little altered as though only buried a day. This he attributed to the preservative properties of antimony, which in sufficient quantity practically mummified the body. He could find no case like this on record, and he regarded it as unique. There was no indication of phthisis, the cause of death being gastro-enteritis caused by the administration of antimony.

The analysis of the body of Bessie Taylor also revealed the presence of antimony in the following quantities :—

In the stomach and its contents	0·32	grains
,, ,, intestines ,, ,,	23·43	,,
,, ,, liver	4·55	,,
,, ,, kidneys	0·82	,,
Total	29·12	grains of tartarated antimony.

Taylor's body was also in a remarkably good state of preservation after being buried twenty-one months, and showed no appearance of recent disease, but signs of acute non-ulcerative gastro-enteritis set up by antimony were evident.

It was about eighteen months after Bessie Taylor's death that Chapman engaged Maude Marsh as a barmaid at The Monument public-house, and her illness and death, the story of which closely resembles that of the other women with whom Chapman had consorted, has been already related.

He was committed for trial on December 19, 1902, and was arraigned before Mr. Justice Grantham at the Old Bailey on March 16, 1903.

For the defence the counsel for the prisoner urged the absence of motive for the crimes, and although he admitted that antimony had been found in the bodies of the three women, he asked if the methods of science were absolutely conclusive ? There was, he contended, room for mistake unless such evidence was accompanied by corroborative evidence of the most powerful kind. There was no proof that Chapman had antimony in his possession since 1897, and his behaviour had been that of an innocent man.

The Solicitor-General, Sir Edward Carson, in his reply, said that although the prisoner was indicted only with regard to Maude Marsh's death, the cumulative evidence of the two earlier murders was perhaps the most fatal testimony. One woman after another was betrayed and abandoned, and all poisoned in the same way and with the same poison. Each received the same " attention " on Klosowski's part during their fatal illnesses. As to motive, the history of the man was

one of unbridled, heartless, cruel lust. If a man were proved a murderer, one need not look for motive, but if motive were wanted in this case, it was easily to be found.

The judge, in summing up, said the case was unique from three points of view, viz. legally, chemically and medically. Chemically, it was unique by reason of the discovery which it enabled Dr. Stevenson to make of the power of antimony to preserve the tissues of the body in almost a perfect state of embalmment; from the legal point of view, because it was the first time the antecedents of a prisoner had been investigated in the way they had been in this case.

Medically, it was a sad reflection that a man who had only been a hairdresser's assistant should be able to defy the doctors of this country, and for years carry on a practice of this kind without the slightest fear of being found out. The only question for the jury to determine was by whom the antimony was administered.

After a consultation of ten minutes, the jury returned a verdict of guilty, the foreman adding "We are all agreed." Klosowski, or Chapman, was then sentenced to death, and paid the penalty of his crimes at Wandsworth Gaol on April 7, 1903.

CHAPTER XV

SOME IRISH POISON MYSTERIES

A CURIOUS case with many unusual features was investigated at Armagh in June, 1905, when two women named Pearson and Black were charged with murdering Alice Pearson, aged seventy-four, the mother-in-law of the former and mother of the latter, insurance benefits being alleged as the motive for the crime.

The case came to be investigated through the statement of one of the women while she was in gaol. Sarah Pearson, one of the accused, was arrested in Montreal while in prison, and made a confession of the crime, implicating herself, her husband and her sister-in-law. She said she bought three pennyworth of strychnine in Armagh and mixed it with mashed potatoes and eggs. When her mother-in-law was eating the meal she said that it tasted sour and she did not like it. Both she and her sister had also partaken of the food.

Evidence went to prove that systematic attempts were made to kill the old woman for the sake of the little money, some forty pounds, which she possessed; that Pearson and Black had first tried metallic mercury, but eventually put strychnine into the meal of potatoes and eggs which caused her death. According to the evidence of a witness, one of the accused women came to his house and said she had seen "Old Alice's ghost," and added that her husband had dreamed that his mother was going to die.

The analyst who made an examination of the organs said that he discovered two hundred and ninety-six grains of pure metallic mercury in the body and had not been able to trace any record of a case where mercury in such large quantities had been found in any human body. The mercury, however, was not the cause of death and did not act as a poison while

in a metallic state. He found one-seventh of a grain of strychnine in the stomach, liver and kidneys and there was little doubt that strychnine had been the cause of death.

The jury found Sarah Pearson guilty and she was sentenced to death.

Perhaps one of the most curious defences to a charge of poisoning that has ever been put forward in court, was that advanced in a case which was tried in Ireland, where a woman was charged with murdering her husband.

The victim was a farmer who was taken ill after eating a supper prepared by his wife, which consisted of a poached egg. He died, apparently from the effects of strychnine poisoning, the following morning.

A week later one of his daughters, a child of three, also died from the effects of strychnine poisoning after drinking some milk. A post-mortem examination was made on both bodies, and led to the discovery of half a grain of strychnine in the stomach of each.

At the trial, the counsel for the defence declared that he could satisfy the jury that no human hand was laid upon the egg eaten, from the moment it was broken in the pan until it reached the deceased man. He contended that the poison had *fallen from the rafters*, and *accidentally dropped on the egg*, portions of which he could prove the accused woman had also eaten. Her husband before he died had expressed this view, and it was proved that some strychnine to poison rats had been placed on the floor of the loft immediately above the kitchen, and some of it had fallen from the rafters on to the egg as it was being removed from the fire to the table. Although the Crown contended this accident could not have happened, the jury found the accused not guilty, and she was discharged.

CHAPTER XVI

THE DEVEREUX CASE

IN 1905 a poisoning case of an unusual character was disclosed at the Central Criminal Court. On April 13 of that year the attention of the police was called to a large tin trunk that was found in a warehouse in Kensal Rise. Round the trunk was a strap and an endeavour had been made to seal it with wax. The lock was forced and the lid opened, and in it was found another covering consisting of a number of pieces of wood wedged tightly together, over which had been placed a mixture of glue and boric acid, which made the box absolutely air-tight.

On the wood covering being removed, three human bodies were discovered beneath, which appeared to be those of a woman and two children. The result of a post-mortem examination and analysis of the organs showed that all three had been poisoned with morphine. More than sufficient of the poison had been administered to the woman for the purpose of taking her life, and sufficient was found in the bodies of the children to achieve the same result.

The body of the woman was identified as that of Beatrice Ellen Maud Devereux, the wife of Arthur Devereux, a chemist who lived at Milton Avenue, Harlesden, and the children were found to be her twin boys.

The Devereuxs were married in London in 1898, and had three children, the twin boys being born at Stroud, where the family had moved in 1902. In 1904 they returned to London, where Devereux became manager of a pharmacy at Kilburn.

In December Devereux took a flat at 60 Milton Avenue, Stonebridge Park, stating that he wanted it only for six months. There was another flat in the house which the landlord, at his request, left empty.

On the afternoon of January 28, Devereux made arrangements for one of the boys to go to a day school in the neighbourhood and on the evening of the same day Mrs. Devereux was out shopping with her mother. They parted near Milton Avenue, and she was never seen alive again by anyone outside her own family. At the end of the following week Devereux appears to have decided to dispose of a number of things in the house, including a perambulator and women's clothing. He gave out that his wife and the twins were away in the country, and arranged for himself and the other boy to go into lodgings in the Harrow Road. His belongings were removed by a local firm, who at the same time undertook to warehouse for him a large trunk which he said contained boxes of chemicals.

Shortly after this, Devereux obtained a situation with a chemist in Coventry, giving himself a reference in the name of Taylor. Mrs. Devereux's mother, not having heard from her daughter for a considerable time, and finding the house in Milton Avenue empty, communicated with the police, which led to inquiries and the discovery of the trunk at the depository.

Devereux was arrested at Coventry and brought to London on April 13. He made the following statement to the police :—

"I, Arthur Devereux, hereby declare that one evening towards the end of January or the beginning of February last, after having been out for a few hours with my child Stanley, I returned to find my wife and twins lying dead on their beds, evidently, to my mind, having died from poisons taken or administered. Rather than face an inquest I decided, with a recent trial fresh in my mind, to conceal the bodies in a trunk which I had had in my house for the past two years. This I proceeded to do at once. I missed some poisons—chloroform and morphine—which I always kept in my writing-desk after leaving my last situation, in the event of my wishing to end my own life rather than face starvation. The room smelt strongly of chloroform, so I concluded that my wife had administered it to herself and the children, and probably also the morphine. I had had a violent quarrel with her before going out, also many times quite recently and during the past twelve months."

The autopsy revealed no signs of disease in any of the

bodies, and death was supposed to have been caused by asphyxiation.

Sir Thomas Stevenson, who examined the organs, said that he found altogether in the internal organs, 1·12 grains of morphine. In the case of the children he found morphine in small quantities which could not be accurately determined, but he believed it to be orginally a fatal dose. In his opinion all three of the persons had died of morphine poisoning. There was no evidence of chloroform having been given.

After the police inquiry Devereux was committed for trial on the capital charge, and the case was tried at the Central Criminal Court on July 27, 1905.

The trial lasted for four days, the prisoner being defended by Mr. Elliott, who urged that he was a man of weak mind, and that, confronted by a crisis, was not likely to act like an ordinary person. He commented on the fact that Devereux had left traces of himself behind in London on going to Coventry, which showed him if not as a cunning criminal, at least as one who was free from the stain of murder. He also commented on the lack of motive for the crime.

Mr. Matthews, who prosecuted for the Crown, endeavoured to reconstruct the tragedy as he conceived it to have happened, and fixed it as occurring on the night of Sunday, January 29. He suggested that at supper time morphine was introduced into the food of the unsuspecting Mrs. Devereux and children, and on their going up to bed in a drowsy condition, Devereux could have easily administered chloroform to make assurance doubly sure. There was no evidence that the prisoner was insane.

The judge, in summing up, referring to the gruesome nature of the case, said there was a strong body of evidence against the prisoner. After only twelve minutes' consideration, the jury returned with a verdict of guilty, and Devereux was sentenced to death.

CHAPTER XVII

THE CRIPPEN CASE

IN 1883 an American named Hawley Harvey Crippen came to England to attend various hospitals for the purpose of seeing operations. He was born at Coldwater, Michigan, U.S.A., in 1862, where he was educated at the Homœopathic College at Cleveland, and took a degree as Doctor of Medicine. After being in England some months, he returned to the States as an assistant to a Dr. Porter, of Detroit, but later he specialized in the eye and ear, and after his marriage he went to live in New York.

It was here in 1893, after the death of his wife, he first met Cora Turner, whom he eventually married, and removed to Saint Louis, where he started practice as a physician and optician. Cora Turner was the daughter of a Russian Pole and a German mother, and her real name was Makamotsky. A woman of extravagant tastes, who delighted in jewellery and dress, she seems to have been fascinated by Crippen. Possessing a fine voice, it was her ambition to go on the operatic stage, and Crippen, at this time having been offered a post as physician to Munyon's Remedies Company, removed to New York, where he paid for the training of his wife's voice ; but when it was completed, it was found she had no chance of singing in opera.

Crippen was transferred by the Company first to Philadelphia and then to Toronto, where he managed Munyon's business. About 1900 he was sent to England in charge of the Company's branch, but leaving them he became physician to what was known as the Drouet Institute. He left the Institute to become medical adviser to a company known as " The Aural Treatment and Sovereign Remedy Company." This also appears to have failed, and he went back to Munyon's

Remedies Co., where he acted as manager till he took on the business as agent. At the same time he was running a business called the "Gayle Teeth Specialists Company," in which he had a partner named Rylands, but the head-quarters of his "Aural Remedies" was at Craven House, Kingsway. Here a Miss Ethel Le Neve was employed as a typist and clerk, and to her Crippen seems to have confided his domestic trials and found in her a sympathizer.

When the Crippens came to London they took a house at 39 Hilldrop Crescent, Kentish Town, where Mrs. Crippen had the assistance of a charwoman to help her in the housework. After they had settled down, Mrs. Crippen wanted to go on the music-hall stage, and her husband paid a fee on several occasions so that she might have a trial turn at minor music halls. In spite of an attractive personality, elaborate dresses, and a pleasant, clear voice, she could not get a sympathetic hearing, proving that she had no stage talent whatever. She was known on the stage as Belle Elmore, and being bitterly disappointed at her inability to get engagements, she became nervous and irritable and subject to fits of violent temper.

Crippen's domestic infelicities were commonly known to his friends, before whom his wife would openly abuse him, often for the most trivial occurrences. His home affairs went from bad to worse, and his wife gave him continual uneasiness and trouble. On several occasions she threatened to leave him and go off with another man with whom she had become intimate.

On January 31, 1910, in the afternoon, Crippen called upon two friends and invited them to his house for the evening to have a game of cards. They agreed, and came to dinner, Mrs. Crippen preparing the meal and helping to serve it, there being no servant present. Apparently husband and wife were on quite good terms, and their guests departed about one o'clock in the morning, leaving Crippen and his wife alone in the house.

This was the last time Mrs. Crippen was seen alive.

On February 2 there was a meeting of the Committee of the Music Hall Ladies' Guild, of which Mrs. Crippen was the honorary treasurer, and a regular attendant, but this time she did not put in an appearance. To explain

her absence, Miss Le Neve came to the meeting, bringing with her two letters. One was addressed to Miss May, the secretary of the Guild, and stated the illness of a near relative had called Mrs. Crippen to America at a few hours' notice, and tendering her resignation. This was signed 'Belle Elmore, per pro H. H. C."

The other letter, which was addressed to the Committee of the Music Hall Ladies' Guild, was similar in purport, and repeated her resignation of the honorary treasurership, and enclosed a cheque-book and deposit-book for the immediate use of her successor. The letter concluded by saying, "I hope some months later to be with you, and in the meantime wish the Guild every success." This was also signed "Belle Elmore," although the letter was obviously in her husband's writing.

The reading of the letters took the members of the Committee by surprise. A few days afterwards a friend of Mrs. Crippen, who was very fond of her, met Dr. Crippen and asked him more particularly about his wife's journey, but could gain nothing very definite in reply. Shortly afterwards this lady again saw Crippen, who informed her that he had that morning heard from his wife who stated she had been rather ill, having something the matter with her lungs.

About the last week in February, there was a dinner given by the Music Hall Artists' Benevolent Fund. Dr. Crippen attended it, accompanied by Miss Le Neve, and it was noticed that she was wearing a brooch that several persons recognized as one they had often seen Mrs. Crippen wearing. During dinner, a lady member of the Guild asked Crippen some details of his wife's whereabouts, and he told her that she was then up in the mountains in the wilds of California.

As time went on her friends still continued to make inquiries about her mysterious disappearance, and on March 21 a letter was received by Mr. and Mrs. Martinetti from Crippen, in which he said he had been upset by serious news about his wife, having received a cable that she was dangerously ill with double pneumonia. A day or two later, meeting Mrs Martinetti, he said he was expecting a cable at any time saying his wife was dead. On March 23 he sent a telegram to Mrs. Martinetti saying he had heard his wife was dead. Three

days later he inserted an announcement of the death in the *Era* and gave notice to his landlord that he would be leaving the house in Hilldrop Crescent on June 24.

Mrs. Crippen's friends still continued puzzled about her mysterious disappearance and her supposed death, and a Mr. Nash, who was connected with the music-hall profession, on returning from America, where he had been on a visit, interviewed Crippen. He was evidently dissatisfied with Crippen's replies to his questions respecting the disappearance of his wife, and he went to Scotland Yard, placing his suspicions before Inspector Dew.

After exhaustive inquiries with a view if possible of finding Mrs. Crippen or some trace of her, the inspector decided to see Crippen himself, and to find out if he could obtain some information. He called at Hilldrop Crescent on July 18, about 10 in the morning, and saw Miss Le Neve, who was there with a young French servant girl. The inspector asked where he could find Crippen, and Miss Le Neve was unable to give him any information, but she gave him his business address at Albion House in Oxford Street. Inspector Dew went there and saw Crippen, and asked him what light he could throw on the supposed death of his wife. Crippen replied, "Well, I suppose I had better tell the truth. All my stories about her illness and death are untrue ; so far as I know she is not dead at all."

He then made a long detailed statement to the inspector, which he committed to writing and signed.

In this statement, which began with an account of his career from the time he was born, he said that his wife had often threatened to leave him, saying she would go out of his life and he would never hear from her again. On the night that their friends came to dinner they had a quarrel after they left, and she said, "I shall leave you to-morrow and you will not hear from me again."

"She told me," he stated, "that I was to arrange to cover up any scandal from our mutual friends ; I went to business next morning and on returning home between five and six o'clock I found she had gone. I then wrote the letters to the Guild secretary, and realizing this would not be sufficient to explain her not coming back, I added she was ill with

pneumonia and afterwards that she had died in California.

"When my wife went away I cannot say whether she took anything with her. She took some of her jewellery, I know, but she left her rings behind. I do not know what clothes she took away. It is true that I was at the Benevolent Fund dinner at the Criterion with Miss Le Neve, and she wore the brooch left behind. She also wore my wife's furs. After I told them my wife was dead, Miss Le Neve and I went to Dieppe for five days. My belief is that my wife has gone to Chicago to join Bruce Miller, a man whom she knew and who, I believe, had speculated and made money."

Crippen signed this statement and Inspector Dew said, "That is all very well, but your wife has got to be found," and suggested an advertisement in the newspapers and discussed with Crippen the form of it. They drew up an advertisement between them, as follows :—

"Makamotsky. Will Belle Elmore communicate with H. H. C. or authorities at once. Serious trouble from your absence. Twenty-five dollars for communicating her whereabouts to ——."

The address was left open for Crippen to decide upon.

On Crippen's invitation, Inspector Dew made a search of the house in Hilldrop Crescent, but found nothing of a suspicious nature. The next morning Crippen arrived at his place of business a little earlier than usual, and his clerk remarked on his worried appearance. Crippen said that he had been bothered, as there was a little scandal. He told him that he was going away, and that if anything happened to him the clerk must deal with the letters. He then sent him out to purchase a suit of boy's clothes, and about 11.30 Miss Le Neve came to the office, where she changed her clothes for the boy's suit purchased by the clerk, and left the office without anyone noticing her, disguised as a boy. Crippen then saw the manageress of Munyon's Company and asked her to change him a cheque for £37, showing his pass-book at the Charing Cross Bank, where he had a balance to that amount. He produced a cheque signed Belle Elmore, the account being in their joint names, and the manageress gave him cash in exchange.

This occurred on July 9, and from that date Crippen

and Miss Le Neve disappeared. On July 11 Inspector Dew again went to Hilldrop Crescent to have a further interview with Crippen and Miss Le Neve, and found they had gone. He then began a systematic search of the premises, and on the 13th his suspicions were aroused by something he saw on the floor leading to the cellar. He decided to examine it more carefully, and finding some bricks which appeared to be loose, he decided to take up the floor. The result was, that he discovered what were obviously human remains, and sent for the divisional sergeant of police. The remains were as far as possible uncovered, but not removed, and on July 14 they were examined by Mr. Pepper, at whose request they were removed to the mortuary for closer examination. The remains having been buried in quicklime were found to be in a fairly good state of preservation, most of the internal organs, such as the heart, the spleen, intestines and stomach being intact. The extraordinary part of the matter was, that no bones were found, and the head, hands and feet were missing. It was apparent that the individual who had carried out the evisceration had done everything possible to prevent identification as regards the body. Some things, however, were forgotten, such as portions of articles of clothing, and some hair done up in curling pins, some strands of which were fully eight inches long, proving they belonged to a female.

Another point noticed was, that the hair had been bleached. The articles of clothing showed the arm-piece of a suit of pyjamas, and separately, the right back portion of the jacket of a similar suit, with the maker's name on it. The woman's clothing consisted of a camisole. The name on the pyjamas was discovered to be the same as on those which Crippen wore and which were found in his box.

Following this discovery, a warrant was issued on July 16 for the arrest of Crippen and Miss Le Neve.

The scene now changes to the Atlantic. On July 20 the steamship *Montrose* sailed from Antwerp bound for Quebec, and among the passengers who embarked at that port were a Mr. Robinson and his son. They mixed freely with the passengers on the ship, but circumstances arose when they were a few days out, to cause the captain to make particular observation of the son, and from certain characteristics, he

began to doubt his sex. Communicating his suspicions to two of the passengers, they soon confirmed his belief that Mr. Robinson junior was, in fact, a girl.

Suspecting something was wrong, on July 22 the captain sent a wireless message asking the police to follow and board his ship, as he was convinced that Mr. Robinson and his son were the Dr. Crippen and Ethel Le Neve who were being sought for by the police. It was probably the first time that wireless telegraphy had been used in connection with suspected criminals.

The day after the receipt of the message, Inspector Dew and Sergeant Mitchell sailed from Liverpool in the s.s. *Laurentic*, which overtook the *Montrose* at sea. During the voyage, Crippen had become very friendly with the quartermaster of the ship, and a couple of days before the vessel was due at Quebec, the quartermaster gave him a hint that the Canadian police were on his track. It is said an arrangement was made between them, in order to avoid the police on landing, that Crippen should be concealed among the cargo, and at an appointed hour there should be a splash in the water as if some one had fallen or jumped overboard, while in the cabin a tell-tale message was to be found. It was thought that no one would think of searching the cargo for the missing man, and thus the fugitive was to get clear away, Miss Le Neve in the meanwhile being advised of an address where she might join him afterwards if all went well.

All Crippen's arrangements, however, were upset by Inspector Dew boarding the s.s. *Montrose* at Farther Point, Quebec. The inspector saw Crippen pacing the deck near the captain's cabin. "Good morning, Dr. Crippen," he remarked. "Good morning, Mr. Dew," replied Crippen. Dew then told him he would be arrested for the murder and mutilation of his wife, Cora Crippen, in London, on February 2. Miss Le Neve, who was still dressed in her suit of boy's clothes, was also arrested. A written card, evidently intended for Miss Le Neve, was found on Crippen. It was in his handwriting and said that he could not stand the horrors he had gone through. There was nothing bright ahead and he had made up his mind to jump overboard that night.

Crippen and Miss Le Neve were brought back to England

by Inspector Dew on the s.s. *Megantic*, and they landed at Liverpool on August 27, and were taken to London. A great crowd had assembled at Euston Station, where the prisoners had a hostile reception, being greeted with groans and hisses. On August 29 they were charged at Bow Street, and committed for trial at the Central Criminal Court, one on the charge of murder, and the other as being accessory after the fact.

At the trial of Crippen it transpired that on January 19 he had purchased at a pharmacy in New Oxford Street five grains of hyoscine hydrobromide, for which he signed the poison register, stating it was required for making homœopathic preparations. At this shop Crippen had previously purchased a number of drugs such as cocaine, morphine, and mercury, and was well known there. He had also written prescriptions which had been prepared for him.

Mr. Augustus Pepper, surgeon to St. Mary's Hospital, gave the result of his examination, and in his opinion, he concluded that the remains were undoubtedly those of a woman, adding that the person who removed the various organs showed considerable dexterity. The remains were buried very soon after death, and approximately they had been in the ground from four to eight months. On a portion of the body found there was a scar, the result of an operation which it was discovered Mrs. Crippen had undergone some time ago. This was important as evidence of identification. He had examined the hair which was found in the curler, and said that the longest was eight inches long and the shortest two and a half inches. It showed signs of having been artificially dealt with, and was partially bleached, but the natural colour of the hair was probably a dark brown. The very lightest portion was a pale yellow.

Dr. Marshall, who assisted Mr. Pepper, stated that there was no evidence at all that suggested the remains were those of a male. What little evidence there was pointed to their being those of a female. He was of the opinion that the scar was the result of an operation, and his impression was there were also marks of stitches.

Dr. B. H. Spilsbury, pathologist of St. Mary's Hospital, who was called for the prosecution, stated he had made a microscopical examination of this piece of skin, and confirmed

the opinion that it was undoubtedly an old scar which had been stretched.

Dr. W. H. Willcox, senior analyst to the Home Office, gave evidence as to the examination of the organs of the body found. He stated that he had tested the extracts he had made from the organs physiologically, and in each case got complete paralysis of the pupil of the eye. He also made chemical tests in the case of the liver and intestine, and he concluded that hyoscine was present, corresponding approximately to one-thirtieth of a grain in the whole stomach. He also found an amount of alkaloid corresponding to one-fortieth of a grain in the whole of the kidney, and an amount corresponding approximately to one-seventh of a grain in the intestines, and in the liver approximately an amount of one-twelfth of a grain. He believed the alkaloid found to be hyoscine, and the total amount to be two-sevenths of a grain approximately. In his opinion there must have been present in the whole body more than half a grain, and the probable fatal dose of hyoscine hydrobromide would be from one-quarter to one-half a grain. It was not commonly prescribed, and was chiefly used in sedatives in such conditions as mania and meningitis, in doses from one two-hundredth to one hundredth of a grain. He was of the opinion it had been administered by the mouth and not as an injection, because of the large amount found in the intestines. He believed the cause of death was poison by hyoscine or a salt of hyoscine.

The counsel for the prisoner suggested that alkaloidal substances resembling atropine or hyoscamine had been met with in decomposed meat, but Dr. Willcox negatived the suggestion.

Dr. Luff, scientific adviser to the Home Office, said he had followed Dr. Willcox's tests in evidence, and he agreed that the poison found was undoubtedly hyoscine. During seventeen years' experience he had always tested for animal alkaloids in toxicological cases, and before that he had conducted a long series of investigations for animal alkaloids, but only on one occasion had he come across them, and that was in some putrefied meat. It was quite impossible that hyoscine could be mistaken for an animal mydriadic alkaloid under Vitali's test.

Mr. Tobin, who defended Crippen, contended that the alkaloid found by Dr. Willcox in the remains might have been traced to an animal alkaloid produced after death as the result of putrefaction. He dwelt on the fact of the lack of motive Crippen had for the suggested crime; and that although he had purchased five grains of hyoscine hydrobromide, he had signed his name in the poison register, although there was no need for him to have done so. He bought the drug in January when he was still agent for Munyon's Remedies, for the purpose of making it into a liquid and using it in the form of the tiny homœopathic tablets which he sold in bottles of three hundred each, to patients. He said that although no obligation rested upon Dr. Crippen to go into the witness box, he chose to go of his own accord, and he would call him.

Crippen was taken through the story of his life by the examining counsel, and coming to the question of his purchase of drugs he said he always made up the preparations he sold, and had bought considerable quantities of different poisons, such as aconite, belladonna and *Rhus tox.* He had frequently used hyoscine in making his homœopathic preparations in extremely minute doses. He admitted purchasing the hyoscine and explained how he used it, by first dissolving it in alcohol, then saturating a certain amount of small disks or tablets, two of which would equal 1/3600th part of a grain. He used it in nervous diseases.

Crippen, examined by the Lord Chief Justice, said he took no steps to find out where his wife had gone to, up to July 8. For three hours he stood the fire of cross-examination by Mr. Muir, the leading counsel for the Crown, and from beginning to end appeared to be utterly devoid of emotion or anything in the least approaching it, nor did he ever lose his self-possession or show the slightest sign of being ruffled.

During the trial Mr. Bruce Miller, whose name had been mentioned by Crippen in connection with his wife, was called, and swore that he had not seen Mrs. Crippen since she left America in 1904.

The Lord Chief Justice, in his summing up of the case, impressed upon the jury that they must be satisfied by the whole of the evidence that the Crown had made out their case,

and if not, the prisoner was entitled to the benefit of the doubt. The crime of murder charged against Crippen was that he wilfully and intentionally killed his wife by poison, and then mutilated the body and buried the remains in the cellar at 39 Hilldrop Crescent, in order to conceal his crime. There was no question here of suggesting that it was by some other means or by some other method or agency that Crippen had caused the death of his wife, and it involved two questions: first, whether the remains found in the house were those of the body of Cora Crippen; if they were not, there was an end of the case; if they were the remains of this woman, then it was a question, was her death occasioned by the wilful act of her husband? These were the two issues upon which the jury must concentrate their attention.

After exactly half an hour's absence the jury returned and declared they unanimously found the prisoner guilty of wilful murder, and Crippen was sentenced to death.

The following morning the trial of Miss Le Neve took place, she being indicted upon the charge of being accessory after the fact of the wilful murder of Cora Crippen. No witnesses were called for the case, and after some formal proceedings the jury found a verdict of acquittal.

The case was brought before the Court of Criminal Appeal, but the appeal was dismissed, and Crippen was executed at Pentonville Prison on November 23, 1910. It is said he made no confession of his crime.

Thus ended the trial of one who was described by Lord Alverstone as an extraordinary man. Throughout the trial he never showed a symptom of concern or trace of emotion or fear; he appeared to be never at a loss for a word or explanation, and showed remarkable self-possession all through, the only argument his counsel could adduce in his defence. But after all this is one of the salient characteristics of poisoners. In Crippen's case we have a man possessing some medical knowledge; who had deliberately chosen a little-known poison to carry out his evil design. He had probably prepared and planned the deed at least a fortnight before it was committed, and then eviscerated the remains of his victim to try and baffle the ablest investigators. He evidently thought his escape from justice sure. But the Nemesis

which dogs the footsteps of all poisoners followed those of Crippen, and he made three fatal mistakes. First in burying a portion of the suit of pyjamas belonging to himself with the remains; second, although he destroyed the major parts of the body to prevent identification, he left the very remains which contained traces of the poison by which he murdered his victim; and third, and most remarkable of all, he forgot to remove the portion of the body containing the scar, which ultimately established beyond all doubt the identity of the remains as those of Cora Crippen, his wife.

This case is noteworthy as being the first on record in which hyoscine was used for criminal poisoning in this country. The presence of the alkaloid was clearly demonstrated, although the remains had been buried for six months.

CHAPTER XVIII

THE MYSTERY OF THE SEDDONS

THERE have been few cases in the history of poisoning where a man and his wife have been charged on the capital charge, therefore the trial of Frederick Henry Seddon and Mary Anne, his wife, on the charge of murdering Elizabeth Barrow at 63 Tollington Park, N., on September 14, 1911, is one of some interest. The mysterious circumstances connected with the case are also somewhat out of the ordinary, as the evidence largely was of a circumstantial character.

In 1901 Seddon, who was a superintendent of canvassers for an industrial insurance company, was living with his wife and three children at 63 Tollington Park, and on July 26, 1910, a Miss Eliza Mary Barrow, a woman of 49 years of age, came to lodge with them. She appears to have been a person of a somewhat strange temperament. She was very deaf, and had in her charge a small boy named Ernest Grant, an orphan of some people with whom she formerly lived. Miss Barrow was the possessor of a considerable sum of money, amounting to about £4,000, part of which was invested in stocks, and she was also the owner of some leasehold property. She had a curious, but not unusual, characteristic of hoarding gold and notes to a large amount in a cash-box, which she kept in a box in her room. There was probably £400 in gold and a considerable number of five-pound notes, said to be at least thirty-three, kept in this cash-box.

All this property disappeared by September 14, 1911, and on that date there appeared to be little cash left in her possession. All the property had found its way into the hands of the Seddons, which included £600 of India stock, the leasehold property and some £200 in cash as well. During October both Seddon and his wife were dealing with five-pound

notes which undoubtedly belonged to Miss Barrow, and which had been in her cash-box. On the day when the India stock and leasehold property were transferred, Mrs. Seddon changed two five-pound notes, endorsing them with a false name and address. Six other notes were also paid into Seddon's banking account.

According to Seddon, the money had been transferred to him by agreement with Miss Barrow, and he was to give her an annuity of a pound a week in exchange for the interest on it. He said that he had a verbal agreement with her by which he was bound to pay her an annuity of £72 a year in addition to the rooms in the house, in return for the property of the India stock.

On September 1 Miss Barrow became ill, from what her medical adviser diagnosed as epidemic diarrhœa, and this continued for at least eight or nine days, after which she began to improve and seemed to be getting better. While she was ill, Mrs. Seddon was the only one who attended to her, with the exception of Seddon, who was known to have gone into her room on September 11, when she made a will, appointing him as her sole executor and trustee. Mrs. Seddon saw after the cooking of Miss Barrow's food and did everything necessary for her, and no servant went near the apartment.

On the night of the 13th she became rapidly worse, but the doctor was not called in until about six o'clock in the morning of the 14th, when she died. Seddon saw the doctor and obtained a certificate to the effect that death was due to epidemic diarrhœa, and two days afterwards the funeral took place. There were some significant facts with regard to what happened after her death. No relative was present at the funeral, nor were they informed of her death until September 20.

After the funeral there was some inquiry from one of the relatives, a Mr. Wonderahe, who had an interview with Seddon. His suspicions being aroused that all was not well, he communicated with the authorities, and inquiries were instituted, which resulted in an order being given for the exhumation of the body on November 15. A post-mortem examination was made, and it was found that Miss Barrow died from the effects of arsenic, the poison being widely dis-

tributed throughout her body. The doctor had not prescribed arsenic in his treatment during her illness, and as Seddon and his wife were the only two people who had come near her during the period, they were arrested and charged with the crime.

How the poison was obtained, and who administered it were the paramount questions at the trial.

During Miss Barrow's illness no one else appeared to have entered her bedroom but the man and his wife, and yet the quantity of arsenic found in the body was so large, that it was found even in the hair and nails. Shortly after Miss Barrow's death, Seddon was seen by two of his colleagues to be in possession of considerable sums of money, including £200 in gold and also jewellery. He bought shares in a Building Society, which he paid for in cash, and made several payments amounting to £150 in gold.

A chemist at Crouch Hill stated, that a girl he had since identified as Seddon's daughter, purchased from him a packet of six arsenical fly-papers; she asked for arsenical papers and not the "sticky" ones.

A doctor who treated Miss Barrow in August, 1911, said she was then suffering from congestion of the liver, and at the end of the month had an attack of asthma, but the symptoms were not severe, and she made no complaint of pain or sickness. The doctor who was called in to attend her on September 2 had attended the Seddons for some years. He found her suffering from sickness and prescribed for her. On the 13th the symptoms of the illness had returned, but he did not consider her condition critical. The following day Seddon came to see him and said Miss Barrow was dead, and he gave a certificate that death was due to epidemic diarrhœa, but he never prescribed arsenic in any form for her during her illness.

Dr. Spilsbury, who conducted the post-mortem examination, stated that the body was in an abnormal state of preservation, and after witnessing tests made by Dr. Willcox, he was of the opinion that death was due to acute arsenical poisoning, which meant poisoning by one or more large doses of arsenic. He had found no sign of internal disease, and in this particular case he could find no external or internal indication of chronic arsenical poisoning.

Dr. Willcox, who made the analysis for the Home Office,

said he found arsenic in all the remains and tissues, the largest proportion being in the stomach, intestines, liver and muscles; there was arsenic in the skin, heart and nails, and it was distributed throughout the body. He agreed with Dr. Spilsbury as to the cause of death. He estimated that there was in the remains 2·01 grains of arsenic, and that would indicate to him that more than that amount had been taken. There might have been an amount of five grains taken within three days of death. In his opinion the fatal dose was given within two or three days of death, probably two days. Two grains of arsenic would be a poisonous dose, and might be enough to kill an adult person, and two or three such doses within a short period of time would be fatal.

Dr. Willcox said he had heard a suggestion in this case that carbonate of bismuth contained arsenic. He had made an analysis of some and found a very faint trace of about one in a million, so at least two hundredweight of bismuth carbonate would be required to give two grains of arsenic.

He made an analysis of the arsenical fly-papers and found arsenic in a quantity varying from 3·8 to 6 grs. per paper. If the paper was actually boiled in water for some minutes, practically all the arsenic would be got out, and he had obtained 6·6 grs. by boiling one, 6 grs. from another and 3 grs. from another. In his opinion the 2·01 grs. he found in Miss Barrow's body would be sufficient to kill an adult person.

A considerable point was made by the counsel for the prosecution in the cross-examination of Dr. Willcox as to the finding of arsenic in the tips of the hair. Counsel remarked, that one of the most important subjects of investigation before the Royal Commission of inquiry into arsenical poisoning, was the presence of arsenic in the hair and the length of time it must have taken before it reached the hair tips. Counsel said that the fact that arsenic was found in the tips of Miss Barrow's hair proved that it must have been given for a period extending over two or three months. Dr. Willcox said that it need not mean that arsenic was being taken continuously, but some might have been taken a year or more previously, and in the present case he was inclined to the opinion that there had been one fatal dose given in the last three days before death.

Mr. Marshall Hall, who defended Seddon, submitted that there was not sufficient evidence to give to the jury, and suggested the case was absolutely a unique one. In all other cases of poisoning there was some direct tracing of the poison, and in the cases of some men who had been tried previously, such as Lamson and Cream, there had been medical knowledge in the possession of the prisoners, but in this case there were two people charged on circumstantial evidence and it could not be said which of them did it. Beyond the evidence of the chemist who said he had sold Margaret Seddon certain fly-papers, there was no proof of any poison being in the possession of either party. Mrs. Seddon said that she herself bought some fly-papers in consequence of the request from Miss Barrow, that something should be done to mitigate the nuisance of flies in the room. She remembered that on one occasion, the contents of four saucers were emptied into one which was placed on the washstand in the room.

Seddon was then called to give evidence and stated that Miss Barrow had asked him about reinvesting her money, as she was losing capital, and he suggested an annuity, which she agreed to in exchange for her India stock and the lease of her property. He denied ever handling the fly-papers which came to his house and beyond giving her a little brandy the last night when she was very ill, he had never given her anything to eat or drink. He had not the smallest suspicion at that time that she was fatally or dangerously ill. He declared he had never purchased arsenic in his life in any shape or form, and swore that he had never either administered or instructed the administration of it.

Mrs. Seddon, who also went into the box, said there were a great many flies in Miss Barrow's room, and Miss Barrow asked her to get some fly-papers, "Not the sticky ones, but those you wet." She herself bought them at the shop of a neighbouring chemist and took four on being told she could get them at a reduced price. The papers were shown to Miss Barrow and placed in a saucer in her room with water on them. During Miss Barrow's illness, she waited upon her, and on one occasion, only, did Mr. Seddon give Miss Barrow any medicine. She had never bought a fly-paper until she bought these, and she had never sent her daughter for anything of the kind.

She began by putting them in saucers singly, two on the mantelpiece and two on the chest of drawers. Then there was an accident, she remembered, and she emptied them into a soup-plate and repeatedly moistened them if they were going dry.

Mr. Justice Bucknill, in summing up, said if the prisoners were guilty, it was a crime which had been carefully thought out and carefully committed in secret. The history of great poisoning cases showed that the poisoner did not poison in open daylight, in the presence of other persons. It was a secret crime, done in the dark, and if this particular crime was proved against these people there could be no doubt as to its being an abominable one, and that the love of gold led to it.

The question to answer was, what was the cause of Miss Barrow's death ? A considerable amount of arsenic had been found in the body ; how did it get there ? There was no direct evidence that Seddon had ever been seen to handle a fly-paper or the water in which one had been soaking. In view of the medical evidence it ought not to be difficult to decide that Miss Barrow died from arsenical poisoning, and it was for the jury to decide whether that arsenic was administered by the prisoners or either of them.

After considering for an hour and five minutes, the jury found Seddon guilty and his wife "Not Guilty." Before sentence was passed upon the man, he read a long statement in which he again denied that he was guilty of the crime. Seddon was condemned to death and his wife was acquitted, and he suffered the extreme penalty of the law on April 18, 1912.

The verdict was much discussed in the Press, and some ten thousand persons, including Mrs. Seddon, assembled in Hyde Park and presented a petition at the Home Office to get the verdict set aside. The Court of Criminal Appeal was asked to quash the conviction, but the judges said they saw no reason to say the verdict was wrong or unreasonable.

In November, 1912, Mrs. Seddon made a remarkable statement in the Press which was published in the *Weekly Dispatch* of November 17. In it she stated, that Seddon committed the crime, that she saw him give the poison to Miss Barrow, that on the fatal night he deliberately substituted for the

medicine the water from the fly-papers and white precipitate powder and gave it to Miss Barrow. She continued :—

" Soon afterwards she breathed her last and I threatened to call the police, but he pointed his revolver at my head and told me if I informed on him he would blow my brains out. He had always slept with a loaded revolver under his pillow. It was Seddon who told me about the flies in Miss Barrow's bedroom and asked me to buy the fly-papers. He would not let me arrange them in the room but took them himself. Late that night Miss Barrow complained to me about the medicine tasting funny. Something made me look round. I found a saucer that I had not put there. It was damp, and I put my finger to it and then on my tongue. It tasted very queer. On the night of her death Seddon went out to a theatre ; several times during that evening Miss Barrow had called out " I am dying," and I told my husband this when he came in, but he laughed. Later on he went to the bedroom and I followed him. Miss Barrow begged him to send for the doctor, but he refused ; I left the room for a few minutes. On coming back Seddon did not notice me standing near the doorway. I saw that the doctor's medicine had been put on one side, and my husband was mixing water from fly-papers and white precipitate powder which was to make the mixture look like that sent by the doctor. Then I saw him approach the bed and give Miss Barrow several doses."

Sir William Willcox, commenting on this case,[1] said it was of interest because arsenic was found in all the organs of the victim, Miss Barrow, and a computation of the total amount of arsenic in the body was made by a determination of the arsenic present in each organ. The corpse was actually weighed for this purpose, as well as the individual organs. A fatal poisonous dose of 2 gr. was proved to be present in the body. For the purpose of this analysis the electrolytic Marsh-Berzelius test was used for the first time in determining quantitatively the amount of arsenic in each organ.

[1] Presidential Address before the Harveian Society, Jan. 11, 1923.

CHAPTER XIX

THE DALKEITH COFFEE POISON CASE

IN the early part of February, 1911, a Mr. Charles Barrett Hutchison and his wife, in celebration of their silver wedding day, gave a whist and supper party to some friends at their house at Bridgend, Dalkeith, near Edinburgh.

There were four tables in the room, eighteen people being present, and at midnight supper was served. Coffee was taken to the ladies in the drawing-room, and on Mrs. Hutchison tasting it she called to her son John, who had been pouring it out in the dining-room, that there was something wrong. Mr. Hutchison and a Mr. Alexander Clapperton, a grocer and wine merchant of Musselburgh, were among those who were drinking the coffee and smoking in the dining-room. Shortly after drinking it, one of the party began to experience a peculiar sensation and to have a disagreeable dryness in the throat. Then it was discovered that most of the ladies in the drawing-room were also in great distress, and in a short time every one who had partaken of the coffee became ill, and the results threatened to become serious.

One of the guests hurried for assistance, and medical men soon arrived and did what they could to aid the sufferers. Mr. Hutchison's eldest son, John, who had been a dispenser, mixed an emetic of mustard and water, which gave the sufferers a certain amount of relief and then he motored to Edinburgh for further assistance. Mr. Hutchison, who had been assisted to bed, passed away shortly after the doctor's arrival, and his friend, Mr. Clapperton, died about three hours afterwards. Practically the whole of the party of eighteen were affected with greater or lesser severity, but only the host and his friend succumbed.

The coffee had come from the shop of Mr. Clapperton, one

of the victims, and although samples of it were subjected to analysis, no trace of poison could be found. The sugar and milk were also examined without result, but clear traces of arsenic were discovered by the analyst in a portion of the prepared coffee that had not been consumed. It was evident that the quantity of arsenic introduced must have been very large to have affected so many people, but where had it come from? That was the mystery. The poison books of the chemists in Dalkeith and Musselburgh were examined by the police, but all arsenic sold during the previous twelve months was satisfactorily accounted for. All kinds of theories were adduced. One brought forward was, that the coffee had been prepared in an old urn which might have absorbed the poison from the metal, but the vessels in which the coffee was made were examined and not a trace of arsenic was found, and so the mystery remained unsolved for over a fortnight.

The police still continued their inquiries beyond the neighbourhood, and eventually at Musselburgh it was found, that a bottle of arsenic was missing from a chemist's shop which had apparently been surreptitiously removed. It then appeared that John James Hutchison had been an assistant to the chemist from whose shop the bottle was missing. This, coupled with the fact, that it was he who had carried the poisoned coffee from the kitchen to the dining-room in his father's house, led to the issue of a warrant for his arrest.

It was then found that John Hutchison had left Bridgend for Edinburgh, ten miles distant, very early in the morning. He was recognized at Waverley Station, Edinburgh, at nine o'clock entering a south-bound express for Newcastle and King's Cross, and on Wednesday a letter dated from an hotel in the Strand reached one of his friends. It contained a passage saying, that the writer intended to throw himself into the Thames off Waterloo Bridge.

Inquiries meanwhile proved that he had been speculating on the Stock Exchange, and his speculations in oil and copper proving unfortunate, he was heavily in debt.

When the inspector, armed with a warrant, arrived at the hotel in London to which he had been traced, he found that he had left. All trace of him was lost for a time, but a description being issued, it was discovered that he had travelled

to Southampton and taken a boat to the Channel Islands. Passing through Guernsey, he travelled to Jersey, where he stayed a night and returned to Guernsey again. To a boarding-house in the latter island he was traced by the local police and recognized from a photograph that had been sent to them. The police sergeant found him in a sitting-room alone, and after charging him made the arrest. When in the passage leading from the room, Hutchison suddenly darted upstairs, followed by the sergeant. He made for his bedroom, and as he opened the door he drew his hand out of his trousers' pocket and put a phial to his lips before the sergeant could interfere.

A doctor was sent for, and although emetics were administered, he died a few minutes after his arrival, or about ten minutes after taking the fatal draught. He gave no information to the sergeant, except saying in the room below, that he would prove he was not Hutchison. He had taken his room in the hotel under the name of Henderson, but from papers and other documents found in his possession there was no doubt he was John James Hutchison, of Dalkeith.

The poison by means of which he had committed suicide turned out to be prussic acid, which he had probably had in his possession for some time. It is an extraordinary psychological problem how a young man of this type, apparently so much liked and popular among the people of the town where he lived, and said to be of a generous, kindly and gentle disposition could have perpetrated the deed. According to his friends, he was the last person in the world who would be thought likely to commit such a terrible crime.

After the death of his father he had been perfectly collected, was the chief mourner at the funeral, and became the object of general sympathy.

Extravagance and social ambition appear to have been his chief faults, but it is difficult to discover the motive which prompted him to the commission of a wholesale crime such as he attempted. The only conclusion that could be arrived at was, that it was the act of a man whose mind was unbalanced and distorted, as he had nothing to gain by his father's death nor from any of the guests he attempted to poison.

CHAPTER XX

THE AGRA POISON MYSTERY

ONE of the most remarkable cases of criminal poisoning in the annals of Indian justice was brought to light in December, 1912. There was living in Agra at that time, a Lieutenant Clark, who was an officer in the Indian Subordinate Medical Department, and his wife, Mrs. Clark, a lady of about fifty-five years of age. Both husband and wife were Eurasians.

On the night of November 17, Mrs. Clark was found in the bedroom of their bungalow badly wounded and died shortly afterwards of her injuries. She had apparently been stabbed to death with a sharp instrument. Her husband informed the authorities that she had been murdered by a native, and suspicion fell upon a servant named Buddhu who was at one time employed by the Clarks.

During the official inquiry which was called to investigate the matter, Miss Clark, the daughter of the victim, said she saw her mother sitting up in bed bleeding profusely from several wounds. The lamp was low in the room and she was unable to recognize any assailant. The whole affair seemed to be shrouded in mystery until the police brought to light a correspondence between Lieut. Clark and Mrs. Fulham, the wife of an Assistant Examiner of Military Accounts, who had died under suspicious circumstances in the previous October. This correspondence showed a connection between the deaths both of Mrs. Clark and of Mr. Fulham, and Lieut. Clark was arrested on November 29, and charged with the murder both of his wife and Mr. Fulham.

Mrs. Fulham was also charged with the murder of her husband and Mrs. Clark, and Buddhu, the native servant, was also arrested. The latter offered to give evidence, and testified

that Lieut. Clark had given him three powders that he was to place in Mrs. Clark's tea, and promised him fifty rupees when he had done it. The witness took the powders and asked what they were for, and was told that they were aperient medicines. At the same time Clark threatened to throttle him if anything leaked out. He gave the powders as he was told, and then left the service of Lieut. Clark immediately.

Miss Clark stated that her father was very violent with her mother at times and had been very intimate for some time with Mrs. Fulham. Mrs. Clark had objected to this and as a result quarrels had taken place. Twice, the daughter stated, her mother had been taken ill after a meal, and referring to one of these attacks in a diary Mrs. Clark kept, she wrote that the cook had put something in her tea.

Mr. Harry Clark, a son, declared that he was aware that his mother was having poison given her and obtained possession of some of the powder and had it analysed by a surgeon, who said it was a "slow poison." His mother had told him that she would be poisoned, and he tried to persuade her to go away with him, but she refused, without giving any reason.

Major O'Meara, a civil surgeon in Agra, who examined the body of Mrs. Clark, was of the opinion that she had been attacked with a heavy weapon and that the blows had been deliberately given by a man. A second son of the accused stated that his father had told them that their mother had been given more than one dose of arsenic, but she proved poison-proof, so that he made no secret before his own family of his intention to get rid of his wife at the first opportunity.

In one of the letters discovered, written by Mrs. Fulham to Clark, which was dated April 22, 1911, was the statement:

"You are very thoughtful in sending me more powders; I was going to ask you for more, as I have only three left. I do not think these powders are having any effect. You say they must be given regularly and then you say you cannot administer them to 'Mrs. C.' as regularly as you would like to. She will need much more than that. Tell me plainly what you think."

An Assistant-Surgeon named Linton told how, when visiting Clark's bungalow one evening, Harry Clark showed him a

white powder and asked him whether it was poison. He tasted it and concluded it was a compound of arsenic, and told young Clark it was a poison and would be fatal in about twenty minutes.

In a statement made by Mrs. Fulham that was read she explained her friendship with Clark, and said:

"I believe Clark must have the power of hypnotism. He made me and my husband do whatever he wished. He won my affection completely from him. On arriving at Agra my husband was suddenly taken ill. Clark went on his bicycle and fetched Captain Dunn, who arrived just in time to see my husband expire. Clark once told me he had given his wife enough arsenic to kill ten men, but she recovered. My husband became very ill and paralysed and helpless, and died on October 10, 1911. Clark gave him several injections before fetching Captain Dunn, and used a hypodermic syringe filled with something from a small bottle."

From the evidence of these letters it was apparent that both the accused conspired in April, 1911, first to poison Mr. Fulham, the poison being sent to Meerut from Agra by Lieut. Clark, and that Mrs. Fulham wrote to Clark duly acknowledging the receipt of the poison, and sending him reports of its effect upon her husband. In one of her letters she alludes to an attempt to poison her husband with "Tonic Powders," which were believed to be a name for a deadly alkaloidal poison which Clark had brought from Calcutta. Another preparation was twice tried previously, but was unsuccessful because Fulham refused to drink the tea in which it was placed because of its peculiar taste.

Mrs. Fulham wrote to Clark on the subject, "This will take a hundred years to kill him." Mr. Fulham became very ill and was taken to hospital, but recovered, and his wife wrote to Clark telling him how the attempts had failed and they must try to find another way.

Fulham then went on a visit to Agra, where he was taken very ill after dinner and died shortly afterwards. Clark himself wrote the death certificate, stating that he died of "general paralysis of three months' standing."

In another letter from Mrs. Fulham to Clark on May 20, 1911, she stated:

"I administered the powder you left. There was no result. I shall begin in earnest on Monday and inform you of the results."

On May 23 she said:

"I again have news for you. I administered a full dose yesterday. Hubby returned the tea untasted. He said there was bad medicine in it. This shows that jalapine is readily tasted. The fates are against us. All our attempts are bitterly frustrated. I feel so disappointed, not so much on my account as on yours. What is the best plan of operation in the future?"

On May 27 she wrote:

"You assure me you are determined to win me at any cost. Come what may, I will help you to achieve that end."

On June 11 she said:

"Hubby is very ill with symptoms of cholera. All blame masonic dinner, but you and I know. I cannot bear to see his suffering."

On June 27 she wrote:

"A powder is hard to administer, as my husband takes no food prepared by me, and makes his own cocoa; but I am still doing my best."

Mr. Fulham's little daughter, a child of ten, told the Court a pathetic story of how her father became ill after dinner on the day on which he died. He was previously quite well, but had dinner in the garden, her mother and herself taking the meal out to him. Afterwards her father complained of illness and went to bed. Lieut. Clark was there at the time. She went to see her father in his room later on and going into the dining-room afterwards, she saw Clark take a red box off a shelf and take out a glass needle. He opened a paper and poured out a white powder into a wineglass of water and filled the needle. She watched him then go into her father's room and seem to push the needle into his heart, arm and shoulder. Shortly afterwards there was a funny gurgling noise from her father. She went to the bedside wondering what it could be, and found him lying on his back and the noise continued.

He was breathing heavily and then he died. Clark came in and felt her father's heart, but returned immediately to the dining-room and said to her mother, "Gone." After that he went out on a bicycle to fetch Captain Dunn. When the latter arrived Clark pretended he did not know her father was dead and said he brought Captain Dunn to see how Fulham was.

Lieut. Clark volunteered a statement in which he said that Captain Dunn was consulted when Mr. Fulham was brought to Agra and advised the injection of ether, digitalin and strychnine, which was to be kept handy and used immediately an attack was coming on. The injection he gave Mr. Fulham as described by the child was ten minims of this mixture. Half an hour later he made a second injection and then went off on his cycle to fetch Captain Dunn. The bottle was labelled "Hypodermic injection" with the prescription fully inscribed and it was kept in Mrs. Fulham's room, where it remained until the time of her arrest. It had been stated that he purchased arsenic, atropine and cocaine from different chemists in Calcutta in 1911. He admitted he made these purchases to treat a patient suffering from rheumatism and neuralgia, and as they did not prove effective, he sent to Calcutta for five grains of gelsemine for another preparation which was harmless. This accounted for the whole of the five grains of gelsemine which he purchased in 1911. He bought fifty-four grains of gelsemine and other drugs in 1912, which he had used, and gave the names of the patients whom he had treated with the medicines in order to prove he habitually prescribed it for certain diseases.

He also stated that he purchased 118 grains of cocaine in 1911 and described the disposal of it and also of the thirty grains of atropine, which he said he had used in a liniment.

A letter from Mrs. Fulham to Clark was read, asking if the "new powders were tasteless?" since Mr. Fulham refused his food with the other powders. In a former letter she describes her husband's frequency of vomiting and, after stating what the hospital doctors thought about his case, she added "but you and I know."

Mrs. Fulham, on being asked by the Court whether she wished to say anything about this matter, declared that she did not know what the powders she gave to her husband were

composed of, but that Lieut. Clark told her that they would make her husband slightly ill, otherwise she would not have given them to him.

Dr. Gore, Assistant-Chemist and Bacteriologist, stated that Clark came to his laboratory in October and asked him for some cholera cultures, saying that he wanted to use them on animals in order to test a cholera specific. He told Clark that animals did not get cholera, and therefore he did not give him any of the cultures. Finally he put him off with some harmless water organisms, as he thought to place cholera cultures in Clark's inexperienced hands would be a most risky proceeding.

On the Saturday before his wife's death, Clark came to the laboratory again and asked for more cultures and said that he had tried them on fowls, cats and dogs which had contracted cholera and they had been cured by his specific.

Major O'Meara, who made the autopsy on Mr. Fulham, stated that he found the remains in a remarkable state of preservation ; it was well known that certain poisons, especially arsenic, assisted in the preservation of the body. He was certainly of the opinion that Mr. Fulham's symptoms were compatible with chronic arsenical poisoning, probably given in small doses over a long period. Taking Mrs. Fulham's statements in her letters to Clark into consideration, describing her husband's condition, it would appear his whole nervous system and brain were wrecked, and following the administration of a powder, paralytic symptoms developed. Asked if a dose of any poison would produce such symptoms, Major O'Meara replied . " Yes, a certain group of poisons, one of which is atropine." A mixture of atropine and cocaine would also produce symptoms of heat-stroke ; he considered the fatal dose of gelsemine to be one-sixth of a grain, or less, if administered hypodermically, and would cause rapid death.

According to the evidence of the analyst, he failed to find any alkaloid in the remains after making tests for strychnine, gelsemine and atropine, but he found slight traces of arsenic in the thigh bone.

The investigation of Mr. Fulham's death having been completed, two natives named Sukhia and Ram Lal were placed in the box and charged along with the other three prisoners.

Buddhu, the native servant of the Clarks, then made a confession. He said that he had first worked for four months with Mrs. Fulham, when one day she spoke to him at her bungalow and said she would give him something to put in Mrs. Clark's food and would pay him fifty rupees. He had refused to do it. Later on Lieut. Clark came into the lamp room in the hospital and took a lamp chimney from him, from which he made powdered glass. He made it into three powders and told him to give it to Mrs. Clark, for which he was promised fifty rupees. When Mrs. Clark became very ill Clark warned him to be careful not to put the powder in the children's food. Ten days later Clark gave him a bottle and told him if he did not give it to Mrs. Clark he would drive him from the hospital, and on that day he poured the contents into his mistress's tea, after which she was sick.

Later Clark asked him to come to Mrs. Fulham's bungalow, where he also met him, and after sending the other servants away, they both asked him if he would arrange to kill Mrs. Clark. Buddhu said he would tell them later and afterwards saw Sukhia and asked him if he could do anything. Sukhia replied, "I cannot do it for a hundred rupees, I want more." He then took Sukhia to the Fulhams' bungalow, where Clark was, and he and Mrs. Fulham conversed at length with Sukhia, who asked for payment before he did the work. Clark replied: "You will get the money when the work is done."

Eventually it was arranged to give Buddhu the money and let him pay Sukhia.

At ten o'clock on the same night, Clark came to the hospital and showed Buddhu six sovereigns and ten rupees and asked if his fellows were coming to the bungalow. Buddhu replied, "When the moon goes down."

He met Sukhia and Ram Lal that night, together with another man named Mohan who brought a large knife, which Ram Lal took. Mohan kissed and worshipped the knife and then sharpened it on a stone.

About one o'clock they all went to Clark's bungalow. Buddhu waited on the verandah while the other four went in at the back door, which they tried to open, but a dog barked. They returned to the verandah, and again went towards Clark's bed-room, but the dog was still barking. Just at that

moment Clark rode up on his bicycle. The four men told him to look after the dog, and they would at once finish the work. Ram Lal opened the door, and Clark entered and took out the dog, which was shut up in the outhouse. Clark then rode off, telling the men to enter the house when he had gone. About half-past one the four men went in, Buddhu waiting outside. Shortly afterwards Ram Lal came out, saying he did not know which was Mrs. Clark and which was the daughter. Buddhu pointed out Mrs. Clark's bed, and then the other two men brought in the lamp. Ram Lal and Sukhia stood behind the curtain, near the daughter's bed, and, while Budhakanjore took the lamp, the other man gave the memsahib a heavy cut. Directly she shrieked, the man gave another cut, and she writhed and rolled over the bed.

All the four men then left. Buddhu heard the daughter cry out, and then ran off. When he reached the main road the other four men demanded money. Buddhu took them to the hospital and told them to wait. He then went back to the bungalow, where he saw the daughter crying and Clark standing by. Buddhu told Sukhia not to worry about the money, as Clark would pay next morning. Ram Lal came to the hospital eight times in the morning for money. Buddhu told Clark, who asked him to take the men to Mrs. Fulham's bungalow, but the same evening Sukhia still complained of not having been paid. Buddhu did not know what happened after that, as he was arrested.

The trial of this extraordinary case took place at Allahabad, on March 1, before the Chief Justice. Clark confessed that he was wholly and solely to blame, and that Mrs. Fulham was acting under his directions. He sent her the drugs and she gave them, under his influence.

With respect to Mr. Fulham's death he said :—

" At first I intended making him sick by giving him small doses, so that he should have to leave the country. The last dose made him very ill and he was brought to Agra in a dying condition. I was sorry for his condition, that is why I killed him. I simply administered four drachms of antipyrine before dinner and this killed him. The injections I gave him after dinner were ether, digitalis, and strychnine, but the dose was too small to counteract the effects of the antipyrine.

I gave him antipyrine because Fulham was a wreck and I wanted to finish him off. The injections were given only on the pretence of doing something for him. I knew they wouldn't do any good."

The Chief Justice.—"I understand you intended to kill him. Did you kill him?"

Clark.—"Yes, I took pity on his condition."

Mrs. Fulham was next questioned. In reply to the Chief Justice regarding the administering of the poison to her husband she said, that Clark suggested making him ill. She gave half or quarter doses because she dared not give the fatal dose. The heat-stroke suggestion came from Clark. Mrs. Fulham further said that she had no explanation to offer regarding her letter suggesting that Mrs. Clark must also be removed. Questioned regarding the incidents on the day Mr. Fulham died, she said she put nothing in his dinner, but saw Clark administer a dose of medicine before dinner. She also saw Clark give injections.

At the conclusion of Mrs. Fulham's statement, counsel for the prosecution said that Clark had admitted that he was criminally responsible for the death of Mr. Fulham, and it was for the jury to decide whether his story was true, or whether he had made the statement with a view to saving Mrs. Fulham. Regarding the latter, counsel reminded the jury of passages in her letters. The prosecution did not wish unduly to press the case against her, and he only asked the jury to act on the plain English wording of the letters. If the jury were satisfied that she had been a consenting party to the murder of her husband, they must also convict her.

The four Hindus were found guilty of the murder of Mrs. Clark; Lieut. Clark and Mrs. Fulham were found guilty in both cases and were sentenced to be hanged. Mrs. Fulham's sentence, however, was eventually commuted to penal servitude for life.

CHAPTER XXI

A CORNISH POISON MYSTERY

TOWARDS the close of the year 1921 a man named Edward Black was living with his wife and stepdaughter, Marian, a girl of seventeen, at the village of Tregonissey, near St. Austell in Cornwall. Mr. and Mrs. Black were married in 1914, the latter being her husband's senior by twenty years, and they had lived together fairly happily, though quarrels about money matters were frequent. Black carried on business as an insurance agent, and his affairs at this time were the reverse of prosperous.

Mrs. Black had for some time been suffering from gastritis, for which Black had often given her medicine and was very insistent on her taking it. She complained more than once to a neighbour, that the medicine given by her husband always upset her and burned her throat.

On October 31, 1921, Black, as was his custom, prepared the breakfast which consisted that morning of cake and bread-and-butter, and made the tea. Within an hour after partaking of the meal Mrs. Black was seized with vomiting and pain and was obliged to take to her bed. As her condition did not improve, a doctor was called in, but in spite of his efforts she died after an illness of eleven days.

Before this happened, Black's money troubles had come to a crisis, and following on discoveries made by the company for which he acted as agent, a warrant was issued for his arrest on a charge of issuing non-existent insurance policies.

Three days before his wife died, Black disappeared, and after a search by the police he was finally traced to Liverpool. When arrested in that city he attempted to commit suicide by cutting his throat, and had to be taken to a hospital.

Meanwhile, the circumstances under which Mrs. Black had died appeared so suspicious that a post-mortem examination was ordered, followed by an analysis of the organs of the body. As a result of the investigation Black was charged at the inquest, which was deferred until he was sufficiently recovered to be brought from Liverpool, with the murder of his wife by the administration of arsenic.

The trial took place at Bodmin Assizes on February 2, 1922, before Mr. Justice Rowlatt, Mr. Holman Gregory appearing for the prosecution and Mr. Pratt for the defence.

Evidence was given by an assistant in a chemist's shop in St. Austell, that on October 29, 1921, Black purchased two ounces of white arsenic, saying he wanted it to kill rats, and that although he was offered other preparations for this purpose, he insisted upon having the arsenic, and duly signed the poison register. Asked by the judge how much two ounces of arsenic would make, the witness replied, "About a heaped teaspoonful; it would be 960 grains," upon which the judge observed that would amount to nearly five hundred fatal doses.

Counsel for the prosecution said that the fatal dose of arsenic, which was about two grains, would just cover a threepenny bit. The effect upon a person who had swallowed arsenic would depend upon whether it was taken in a dry or liquid state; in liquid form on a empty stomach its effect would be very rapid.

The doctor who attended Mrs. Black during her last illness stated that at the post-mortem examination, it was found that the heart was normal and that there was nothing to account for the rapid action he had noticed during her illness. Questioned as to the presence of arsenic in some empty medicine bottles which had been found in the house, he replied that it was a common thing to find arsenic in bismuth in spite of every precaution against impurity. The amount found in the bottle, however, was 1/20th of a milligram, a milligram being 1/65th of a grain.

Mr. Webster, analyst to the Home Office, said he examined the stomach, intestines, liver, and one kidney of the deceased woman, together with 6¾ fluid ounces of blood. He found arsenic in all the organs, the total amount being 1/17th of a

grain, equivalent to 1/6th of a grain in the whole body. Slight traces of arsenic were found in the bottles and other articles found in the house and brought to him by the police, but that could not possibly account for the amount of arsenic found by him in the organs of the deceased woman. The traces of arsenic in these things were so small that they would not affect the system at all; to get a fatal dose from medicine containing that proportion it would require 1,300 bottles.

The amounts found were consistent with the taking of a poisonous dose, or a series of small doses which might produce poisonous symptoms. If such doses had been taken they had probably been well diluted. There was no direct evidence of an irritant poison to be seen in the walls of the stomach or the intestines. It was possible, however, for all the arsenic to have disappeared, even if a fatal dose had been taken. It would depend upon the time the patient lived, and a considerable quantity might have been vomited. He did not agree with the counsel for the defence, who urged that arsenic remained in the body indefinitely. In his opinion that was not the case; it was got rid of very quickly. Arsenic would remain in the hair and nails for a considerable period, but after a comparatively short time it could not be detected in the organs.

Sir William Willcox, Consulting Medical Expert to the Home Office, described the symptoms of arsenical poisoning. He said that when a big dose was taken, death usually occurred in three days, but in some cases the arsenic damaged the organs of the body, and death might occur several days after the taking of the last dose. He had known cases in which some months had ensued before death. In his opinion the cause of death in this case was arsenical poisoning. He based his opinion not only on symptoms but on the analysis. He believed that no arsenic had been administered to Mrs. Black within five days of her death. She had not died from the direct effects of arsenical poisoning, but the cause of death was exhaustion coupled with poisoning of the vital organs.

At the suggestion of the judge, Mr. Webster made three cups of tea, one with two grains of arsenic in it, one with one grain, and one with none, and these cups were handed to the judge and jury for their inspection.

Evidence was given by Mrs. Black's daughter, Marian, and by the neighbours, showing that Black had on different occasions administered medicine to his wife, and that she had frequently complained of it being "peppery" and of her dislike to taking it.

Counsel for the defence urged the lack of motive for the crime, and suggested that death was due to gastritis, from which disease Mrs. Black was known to have suffered.

On the second and last day of the trial, Black himself went into the witness-box, and denied, as he had previously done at the inquest, that he had ever had arsenic in his possession, or that he had purchased it at St. Austell on October 29. He also added that on October 31 his wife was not present at breakfast, but that it was taken up to her by Marian, the girl.

The judge, in summing up the case, said that it was one of circumstantial evidence. As a rule in such cases one found motives included, but in this case there was none. There was no doubt that Black's behaviour all through his wife's illness was that of attention to her, and not either neglectful of her or hostile to her.

The jury, after an absence of forty minutes, returned with a verdict of "Guilty." Black was sentenced to death, and was executed at Exeter Gaol on March 24, 1922.

In commenting on this case, in an address before the Harveian Society, Sir William Willcox stated:

"it is interesting from the fact that although arsenic was present in appreciable amount in all the organs, the total amount found in them was considerably less than a possible fatal dose. The explanation of the small amount of poison in the body was clearly shown by the clinical history. The case was one of delayed arsenical poisoning, a considerable proportion of the arsenic having been got rid of by excretion in the few days which elapsed between the administration of the poison and the time of death."

CHAPTER XXII

THE ARMSTRONG CASE

IN 1921 the little town of Hay in Breconshire became the centre of one of the strangest poison dramas of modern times. There were practising in the town two firms of solicitors, the head of one being Mr. Robert Rowse Armstrong, M.A., who had held a temporary commission as major during the war, and was Clerk to the Bench. The principal of the other was a Mr. Oswald Norman Martin, who, after demobilization had entered into partnership with Mr. Robert T. Griffith, who died in November, 1920, leaving Mr. Martin to carry on the practice.

Mr. Martin was married on June 14, 1921, to Miss Davies, the daughter of a local chemist, and Major Armstrong was invited to the wedding reception and sent a present. Towards the end of September a parcel arrived at Mr. Martin's house addressed to him in block letters, apparently to disguise the handwriting. It contained a box of Fuller's chocolates that had come apparently direct from the makers. It was noticed, however, that the ribbon securing the box had been untied and retied in a different way, and anything that could lead to the identification of the shop where it had been bought had been taken away. The box was put on one side until October 8, when after a dinner party given by Mr. and Mrs. Martin, it was handed round the table, but only one person, Mrs. Gilbert Martin, a sister-in-law of the Martins, took anything from it. Later that evening she was taken ill with vomiting, and suffered from palpitation of the heart. After dinner, the box of chocolates was again put away and nothing more thought about it, until they were suspected of being the cause of the lady's sudden seizure. The chocolates were then handed over to Dr. Hincks, of Hay, who sent them to London to be

analysed. According to the report returned to him it was found that in two of the chocolates in the upper row some holes had been drilled about half an inch long, into each of which several grains of white arsenic had been placed and an attempt had then been made to fill up the ends of the holes with pieces of chocolate.

About this time, it appears, Major Armstrong began to press Mr. Martin very frequently to come and have tea with him, and at length Mr. Martin agreed and went to Armstrong's house about five o'clock on Wednesday afternoon, October 26. When he entered the drawing-room he noticed a three-tier cake-stand on which were apparently some buttered scones. Major Armstrong called for a cup of tea for him and handed to his visitor one of the buttered scones from the plate himself. He also had a piece of currant bread and butter which was on a plate and left the house at half-past six, but shortly after arriving home began to feel unwell. Towards evening he got worse and about nine o'clock violent vomiting set in which continued at frequent intervals throughout the night. He also had attacks of palpitation and diarrhœa. On Thursday morning the doctor was called in and he did not recover sufficiently to return to business until November 1. The following day he met Armstrong, who asked him if he was feeling better, and remarked, "It may seem a curious thing to say, but you will have another attack," to which Mr. Martin replied, "I hope not."

During the following three or four weeks, Armstrong again repeatedly asked Mr. Martin to come to his house to tea and extended the invitation also to his office, and seemed particularly anxious that he should accept. About this time there was some business between the two solicitors about a sale of land, Mr. Martin acting for the purchaser and Mr. Armstrong for the vendor. There had been very considerable delay in completing the purchase and Mr. Martin had written, that unless the completion took place, his clients would have to rescind their contracts and demand the return of their deposits in each case.

The completion had not taken place on October 20, and Mr. Martin wrote formally giving notice to rescind the contracts and demanding the return of the money paid on deposit

and expenses, which amounted to about £456. Armstrong asked as a personal favour if this could not be postponed. Mr. Martin's clients decided not to consider the suggestion, and thus the matter stood at the time.

On December 5 Mr. Martin wrote on behalf of his clients to Armstrong's firm, threatening that, unless he received a cheque for his clients' deposit by December 12, he would have to take proceedings.

During Mr. Martin's illness the doctor attending him took certain samples for analysis which were sent up to Dr. Willcox, who found in the specimens one-thirty-third of a grain of arsenic. Mrs. Martin, having mentioned to her mother about her sister-in-law's illness after eating one of the chocolates, gave the remainder of the box to her, and she showed it to her husband, Mr. Davies, the chemist. In examining them he noticed that one had a little white powder scattered over one end, and that two of them certainly had been tampered with. He thought that they looked very suspicious and so he took them to Dr. Hincks, who sent the box with the remainder of the chocolates to London to be analysed, the result of which has been already stated.

The police were then informed and commenced to make inquiries, with the result that detectives were called in from Scotland Yard and Armstrong was arrested.

It was then found that Mr. Davies, the chemist in Hay, had sold Armstrong arsenic in considerable quantities in 1913 and 1921, which he said he required for making weed-killer, and following on what the police discovered they were led to investigate the cause of the death of Armstrong's wife, which had occurred about twelve months previously.

An order for exhumation of the body was given by the Home Office and the internal organs were sent to London for analysis. They were found to contain arsenic to the extent of three and one-fifth grains.

While the charge of attempting to poison Mr. Martin was in process of being heard before the magistrates, Armstrong was charged with the murder of his wife.

Mrs. Armstrong was forty-seven years of age when she died and had been married for about fifteen years. In 1919 she had first consulted Dr. Hincks, being troubled with

neuritis in her left arm. After treating her for this complaint the doctor did not see her again for nearly twelve months, when he received a message from Armstrong to the effect that his wife was suffering from pneumonia. A day or two later he found she was suffering from delusions and that her mental condition was apparently bad. He called in a colleague and it became apparent to them that there was something additional to the mental trouble, as Mrs. Armstrong had been taken ill with vomiting and complained of severe pains and heart trouble. The doctors concluded she had better be removed to an asylum and she was taken to Barnwood, near Gloucester. She was there confined to bed and developed a sort of paralysis; she was treated with tonics, and one of these contained a small amount of solution of arsenic. Her condition improved and the doctor told Armstrong that she would be able to go home on January 11, and Armstrong went to the asylum and brought his wife back to Hay. On that day it was found that Armstrong had purchased a quarter of a pound of arsenic, and at one time in conversation with the doctor had asked him how much arsenic constituted a fatal dose. He also asked Dr. Hincks to visit his wife occasionally and a nurse was engaged to look after her.

For about a month she seemed to be getting better, then in February the sickness and vomiting commenced again. The doctor thought it was a case of severe biliousness, but towards the end of February she got worse and died on the 22nd of that month. The doctor certified that she died from gastritis and heart disease and at that time had not the slightest suspicion of foul play.

In 1919 Mrs. Armstrong made a will leaving some £2,419, which was drawn up by her husband and witnessed by two servants in the house.

In a previous will made in 1917, Armstrong was to receive an annuity of fifty pounds a year, while the property was to be divided equally between his children, but two years later in the fresh will drawn up by her husband, she left all her property to him. It transpired afterwards that the second will was drawn up in Armstrong's own writing and purported to be signed by two witnesses. Mrs. Armstrong was not

present and the two servants who signed it at the request of Armstrong stated, that they did not know it was a will they were witnessing.

To all appearances and in the opinion of her medical adviser Mrs. Armstrong had died a natural death, but on exhumation some ten months afterwards a sufficient amount of arsenic was found in the remains to poison her. Almost directly after his wife was buried and he had got the property in his possession, Armstrong went to the Continent, and immediately on his return at the end of April was talking about marriage to another lady. It was noteworthy that a packet containing white arsenic, not coloured, which chemists are bound by law to do before selling it, was carried by Armstrong in his pocket on the day on which he was arrested. Also that Mr. Martin was nearly fatally poisoned after taking tea with Armstrong, and that the amount of arsenic, one thirty-third of a grain, which was found in the specimen submitted for analysis pointed to the fact, that the amount he had taken a few days before was a little over three grains. It was also remarkable that after Armstrong had asked Dr. Hincks "What is sufficient arsenic to cause death?" and was told three grains, that was the exact amount that was found in a packet in his pocket.

Chief Inspector Crutchett, of Scotland Yard, saw Mr. Armstrong at his office on December 31, and told him that he was investigating the sudden illness of Mr. Martin after taking tea with him on October 26. He also told him about the chocolates which were found to contain arsenic, and it was known that he had purchased arsenic on January 11, 1921. He asked him if he could account for his movements on October 26, and what became of the arsenic that was in his possession. Armstrong then made a statement that was taken down in writing, and which he signed. In it he stated, that he also partook of the buttered currant loaf and scones which he handed to Mr. Martin, who he knew had not been well before he paid the visit to his house. He acknowledged that he purchased arsenic in 1914, which he used for making a weed-killer consisting of caustic soda and arsenic which he found to be cheaper than what he could purchase. He was unable to throw any light on the finding of arsenic in Mr. Martin's

tests or on the cause of his illness after visiting his house. After signing the statement, Armstrong was arrested and was asked to empty the contents of his pockets on to a desk. Among the articles found in his possession was a small packet containing a white powder and two or three little pellets, rather heavy, which were in a small envelope, which also had the remains of some white powder. The small packet was found to contain $3\frac{3}{4}$ grains of white arsenic.

At the magisterial inquiry, Mrs. Armstrong's sister said that her sister was a believer in homœopathic medicines, and among them were arsenicum, nux vomica and liquorice, which she not only used for herself, but the household generally. The doctors who saw Mrs. Armstrong at the asylum and prescribed for her, had ordered her a mixture containing solution of arsenic, iron and ammonia citrate and nux vomica, the solution of arsenic being in five-minim doses. She had taken that medicine as a tonic up to October 4, but after that date had taken nothing which contained arsenic.

Dr. Hincks, who had attended Mrs. Armstrong from 1919, described her complaint and condition; it was owing to her mental trouble that he advised her removal to the asylum, and at Armstrong's request he consented to her return home. He saw her several times afterwards, but her physical condition grew worse and she became weaker every day. On February 16 he told her husband that her case was quite hopeless and later he heard she was dead. He gave a certificate that death was due to gastritis and heart disease. His opinion now was that all these conditions were due to the presence of chronic arsenical poisoning, and he thought the cause of death was due to the administration of arsenic.

Dr. B. H. Spilsbury, who made the post-mortem on the body of Mrs. Armstrong after exhumation, said he found it in an unusually good state of preservation, allowing for the time which had elapsed since her death. It was a condition which was found in certain cases of arsenical poisoning, to which in his opinion her death was due. With reference to the mixture which was prescribed for her at the asylum and taken as a tonic for a period of some months, he stated that in that small quantity he would not expect to find any traces

of arsenic in the body, with the possible exception of traces in the nails and hair.

The official analyst to the Home Office, who had analysed the chocolates sent to Mr. Martin, said that he found the box contained thirty-two chocolates, two of which had the appearance of having been tampered with. A cylindrical hole nearly half an inch long had apparently been bored and filled with a white powder, and attempts had been made to seal it up with a covering of chocolate. The white powder was found on analysis to be arsenious oxide. He estimated that the amount in one chocolate was slightly more than two grains. The rest of the chocolates showed no trace of having been tampered with. He found arsenic in all the organs of Mrs. Armstrong's body, the total being equivalent to 3·2 grains, which led him to believe that she must have had a considerable amount of arsenic during the last few days of her life, and that her death was due to acute arsenical poisoning. A quantity amounting to a fatal dose must have been taken within twenty-four hours of her death.

The analyst also made an examination of a number of bottles and packets found in Armstrong's house, most of which contained arsenic either in solution or powder.

Sir William H. Willcox, medical adviser to the Home Office, said the mixture that contained arsenic prescribed for Mrs. Armstrong at the asylum, could not have accounted for the arsenic found in her body. Arsenic taken thus for a month would be entirely eliminated, usually in ten days. The symptoms described in the illness of Mrs. Gilbert Martin after eating one of the chocolates, and those of Mr. Oswald Martin, were all consistent with acute arsenical poisoning. He was of the opinion that Mrs. Armstrong was suffering from the effects of an irritant poison when she was taken to the asylum in August, 1920, and on her return home the reappearance of these symptoms showed she was again suffering from arsenical poisoning. With respect to the distribution of the arsenic in the organs taken from the exhumed body, he had no doubt that a possibly fatal dose of two grains or more must have been taken within twenty-four hours of death. He had known of cases of suicide where a large dose or possibly two had been taken, but in this case there

were obviously successive doses, giving rise to very painful symptoms, which were not in the least indicative of suicide. He did not believe it possible that she could have taken the doses herself within twenty-four hours of death, and he was confident that she was suffering from acute arsenical poisoning when she died.

On this evidence Armstrong was committed to the Assizes on the charge of murdering his wife and of the attempt to murder Mr. Oswald Martin.

Armstrong's trial took place at the Hereford Assizes before Mr. Justice Darling, on April 31. The case for the Crown was conducted by Sir Ernest Pollock, K.C., and others, and Armstrong was defended by Sir Henry Curtis Bennett, K.C.

The nurse attending Mrs. Armstrong said, that her husband frequently came into the bedroom the last few days of her illness when she was confined to bed. He was alone with her on several occasions and sat in the room when she went to her meals. She noticed that sickness occurred about twenty minutes after her patient had taken food. Mrs. Armstrong kept a chest of homœopathic medicines in the bedroom, but up to the Sunday before she died she was unable to get out of bed. She said she did not think it was possible that Mrs. Armstrong on February 13 could have got out of bed and got a packet or bottle out of the cupboard in the room ; she had been told by the nurse who was previously in attendance on Mrs. Armstrong, that she was afraid that she might some time commit suicide, as she was certainly suffering from delusions.

Chief Inspector Crutchett, who was present at the arrest of Armstrong, said he had no opportunity after December 31 of going back to the house, but the house had been searched and he was aware of a little drawer in the cupboard in the study. Sir Henry Curtis Bennett then told him that a small paper packet of white arsenic was found in that drawer by Mr. Matthews, Armstrong's solicitor, his managing clerk and Dr. Chivers. The inspector declared there was no packet of white arsenic there when he searched the drawer. Counsel remarked that there were actual traces of arsenic in the drawer itself. In reply to the judge the inspector

said, that had the packet been in the drawer when he searched he would have seen it.

A feature of the scientific evidence given by Mr. Webster was the statement that he had never, in his experience of making analyses of organs taken from three to four hundred bodies, discovered such a quantity of arsenic as he did in the case of Mrs. Armstrong.

Superintendent Weaver, who searched Armstrong's study at his house, said that he had examined the little drawer of the bureau in which it was stated a packet of white arsenic was found after the police search. He distinctly remembered pulling out the drawer and placing it on the desk, and was positive there was no packet of white powder there.

The counsel for the prisoner in addressing the jury, asserted that the suggestion that Mrs. Armstrong took arsenic herself, was infinitely stronger than the case made out against the prisoner, and called Armstrong as a witness to give evidence in his own defence.

Armstrong gave a detailed account of his career and war service. He took his degree as Master of Arts at Cambridge University, and had held important and responsible positions, including that of Justices' Clerk of Hay. He was a partner in the firm of Cheese & Armstrong until 1914, when Mr. Cheese died. He married in June 1907 and had three children. He held a commission in the Volunteer Forces of the R.E. until 1914 and was then gazetted captain. In June, 1918, he went to France, where he remained until October of that year and was demobilized in the spring of 1919.

Questioned about the second will in his own handwriting, he said the reason for his wife's deciding to make a second will was, that she had come into some further property since the first will, owing to the death of her mother, and she wished to make a shorter and simpler one. He drew up the document at her request and with her full knowledge. He stated that he first became aware that there was something wrong with his wife on August 9, but he left her apparently in normal health when he went out in the morning; on coming back for lunch she surprised him by saying before the children she expected that he would have been arrested; she had done something to cause his arrest and had told the children

they might never expect to see him again. This was the first time he had ever noticed any active delusions, and as the delusions did not diminish he saw Dr. Hincks and told him what had occurred. Discussing the matter with a friend, he had made the suggestion that it would not be safe to leave razors about near his wife, and as a matter of fact, he had removed them from the room and also his service revolver. He denied emphatically that there was any truth in the suggestion, that he had ever administered arsenic to his wife prior to her removal to Barnwood Asylum.

Sir Henry Curtis Bennett, K.C., in his speech for the defence said: "This case is a most extraordinary one, because the prosecution set out to prove that in August, 1920, Armstrong started to administer arsenic to his wife; that in January, 1921, he continued, on her return from Barnwood Asylum, to administer poison to her; and that finally she died as the result of poison administered by him. They set out to prove that and in doing so, they had not been able to make any suggestion as to how Major Armstrong administered the poison, the time he administered it, or in what it was administered."

Dealing with the purchase of arsenic, counsel said Major Armstrong bought half a pound of arsenic coloured with charcoal in June, 1919. Six out of these eight ounces he had used for weed-killer, and the remainder was discovered in the cupboard in the library. He bought some in 1921, having forgotten that he still had a little left from 1919. He returned from abroad in May and went to the cupboard and found the packet with no string upon it, looking as though it had been opened. He divided it into two parts. One he used by dividing it into a number of tiny packets like the one found upon him. These little packets he used in a way advised by a chemical company, and he carried them in his garden coat. It so happened that on December 31, he had on that same garden coat and in one of the pockets he had, together with his business and private letters, that little packet of arsenic.

What happened to the other half of that arsenic? Having separated those packets for safety, he put that other little packet, with the blue paper round it, in a little bottom drawer in his bureau which was not a key-drawer at all.

On December 31 he was arrested. The next day he remembered this little packet and told Mr. Matthews his solicitor about it. Mr. Matthews went to the house and in the presence of the housekeeper, Miss Penn, opened the drawer, but there was no packet to be seen. They believed the police had found and taken it. Mr. Matthews then pressed the police for a list of things found in the house, and when he had got it, he found that the packet of arsenic was not mentioned. On February 9, therefore, he again went to the house, and going to the bureau pulled the drawer out bodily, and in putting his hand in to see if there might be a secret drawer, he found the packet of arsenic, which had been caught up at the back. "Thus," said counsel, "the last quarter of a pound of arsenic bought by Armstrong was accounted for."

Armstrong, questioned as to what he did with the small packets of arsenic he was said to have made up, declared that he made these little packets simply by portioning out a small quantity with his penknife. He had used them all for killing weeds with the exception of the one that was found in his pocket with his letters when he was arrested. It was his custom to drive an old file into the ground over the root and then drop in the contents of the small packet of arsenic, so that it fell to the bottom or stuck to the side, and he did this to any dandelion root he wished to kill. He could not think how he used nineteen packets instead of twenty, as he was under the impression that he had used them all. When he was arrested and placed the contents of his pockets on the table, he did not know the remaining small packet of arsenic was there until he saw it and recognized it. When he saw it, he then remembered about the two ounces that he had left in the drawer of the bureau. He did not tell the police that they would find white arsenic in the bureau, but he realized that the finding of the packet had placed him in a awkward situation.

Mr. Justice Darling questioned Armstrong very closely about the purchase, use and discovery of the white arsenic. He replied that previous to buying this quantity which he used for killing dandelions, he had never had white arsenic in his possession. He had used nineteen of the little packets on nineteen dandelion roots.

"Did you notice what became of the dandelions, did they die?" asked the judge.

"They did," replied Armstrong.

"That was very interesting, was it not?" remarked Mr. Justice Darling. "It was an interesting experiment to you who wanted to get rid of the weeds?"

"When you saw the little packet and realized you had arsenic in your pocket, did you realize it was a fatal dose of arsenic not for a dandelion but for a human being?"

"No," replied Armstrong, "I did not realize that at all."

"But you had been making rather a study of arsenic?"

"No."

"It appears now," said the Judge, "that if every one of these little packets was the same as that found in your pocket it contained a fatal dose of arsenic."

Armstrong replied that he realized that now but did not do so at the time. He had not disclosed to the police that he knew the arsenic was in the drawer, as he thought it was certain they would find it.

Dr. F. S. Toogood, who was called for the defence, said he was of the opinion that Mrs. Armstrong was suffering from chronic indigestion. He thought that up to the time of her removal to the asylum, she was not suffering from arsenical poisoning, and up to February 16 there was no evidence of anything consistent with it. In his opinion death was caused by arsenic taken about February 16, and if a dose was taken on that date it would account for the amount found in the body.

Dr. Ainslie, of Hereford, who was present at the post-mortem, said that judging from the evidence of her last illness and that of the post-mortem, he was perfectly satisfied that Mrs. Armstrong had died after a large dose of arsenic which was taken about February 16 or 17. He expressed dissatisfaction over the preliminaries in the case of the test for Mr. Martin, and said that there might have been arsenic in the glass of which the bottle was made, as well as in the medicines with which Mr. Martin had been treated by Dr. Hincks. He was questioned on the subject of arsenic being found in bismuth, and agreed that two parts in one million was the amount allowed. He referred to the possibility of impurity in the

supplies of bismuth from America available during the war.

Dr. J. Steed, the last witness for the defence, said he believed that up to the time she was taken to the asylum, Mrs. Armstrong's condition was undoubtedly due to some internal trouble, such as indigestion or a form of neuritis. He believed the cause of her death was the taking of one large dose of arsenic on February 16.

Sir Henry Curtis Bennett, in his final address, alluded to the important point that had been made of the finding of the white arsenic in the bureau after Armstrong's arrest. The evidence for the prosecution had been that Armstrong had always purchased coloured arsenic, and this discovery of white arsenic was of the highest importance. Supposing that packet of white arsenic, which undoubtedly was bought from Mr. Davies, the chemist in Hay, had not been found, the case would to a very large extent have been made to turn upon how Armstrong came to be in possession of white arsenic. He would have said: "I purchased it from Mr. Davies." And the Attorney-General would have said: "That cannot be true, produce some of it. Davies has sworn that all the arsenic you purchased was coloured, and all we have found was coloured." It would have been said: "It is all very well for you, Armstrong, to say that you were buying your arsenic openly in your own town. You must have gone outside to make a secret purchase of arsenic." "And this is the important part of the discovery of the white arsenic," concluded Sir Henry.

The Attorney-General, replying on behalf of the Crown, admitted that the case for the prosecution had changed. This, he affirmed, was a poisoning case, and he doubted if in the history of the world the poisoned cup had been seen to be poisoned, and when administered had been known to have been poisoned. In the case of poisoners they would always find subtlety and an endeavour to cover up things that were sinister. He claimed that this case depended upon circumstantial evidence; the prosecution had endeavoured to be fair to the prisoner. The changes in the case were due to the fact that they now knew, as they did not know at the start, the defence would admit that Mrs. Armstrong died of arsenical poisoning; and they knew now, as they did not know

before, that the defence was placing no reliance upon her having taken homœopathic medicines. He did not know before, as he now knew, that in August, 1920, Armstrong was possessed of two ounces of white arsenic, the balance of what he had bought in 1919. He was also unaware before, that in addition to the small packet that was found, he had some arsenic, approximately two ounces, which he had bought in 1920.

The central feature of the case was the defence of suicide raised by Armstrong himself. One person, and one person alone, was constantly about Mrs. Armstrong in August, 1920, and again in January and February, 1921. "Let me," said the Attorney-General, "note a remarkable piece of evidence. When Armstrong was asked if he was alone with his wife, he replied, 'Yes, I was alone with her. There was milk and soda in the room,' and when asked 'Did you ever put a cup to her lips, did you ever minister to her, you the devoted, loyal, faithful, loving husband?' his reply was 'No.' Can this be believed?"

With regard to the Martin case, the Attorney-General scouted the suggestion that the arsenic taken from Martin came from a dirty bottle or cork or from impure chemicals in his medicine. He believed the story of the twenty little packets made up to kill dandelions on the lawn was a falsehood.

The judge, in summing up, carefully sifted the whole of the evidence that had been given. He stated that the question to be decided was, had the prosecution proved that Armstrong gave his wife the poison. "The case was a deeply interesting one, and he doubted if anyone had any recollection of so remarkable a case in its incidents. It had been said that this case depended upon circumstantial evidence, but circumstantial evidence was as good as any other, provided it was relevant and true. Circumstantial evidence going to prove the guilt of a person was this: 'One witness proves one thing and another witness proves another thing, and all these things prove to conviction beyond all reasonable doubt, but neither of them separately proves the guilt of the person.' It should be remembered that Armstrong was arrested not on the charge of murdering his wife, but of attempting to murder

Mr. Martin. Having been arrested for an attempt to murder Mr. Martin on December 31, only then was some one or other led to think 'What about Mrs. Armstrong, what did she die of?' The symptoms were very similar, so an order was obtained and the body was exhumed on January 2, and it was then found that there was still in that body a large dose of arsenic, more arsenic than those who were accustomed to dealing with these things had known in any exhumed body before. There was no proof that there was any arsenic in the cupboard in the bedroom, and there was evidence there was arsenic in the cupboard in the room downstairs. It was incredible, therefore, that a woman who was anxious to get better committed suicide, and had taken a large dose of arsenic two days previously. It was incredible that a woman in the condition in which she was, could get up with the intention of taking a dose of arsenic. Where had she got it from? She could not have taken the arsenic herself within twenty-four hours of death. If Dr. Spilsbury's evidence was true that was practically impossible."

The jury after retiring for forty-eight minutes found Armstrong guilty on the charge of wilfully murdering his wife, and sentence of death was passed.

The trial lasted ten days, and the dramatic production by Armstrong's counsel of the packet of two ounces of white arsenic found by Armstrong's solicitor, wedged at the back of the drawer of the bureau in Armstrong's study six weeks after the police had searched and found nothing in that drawer, was very unexpected. This packet of arsenic became one of the outstanding features of the trial, and by the judge's order the bureau was brought to a room adjoining the Court, where a test was made. Armstrong was instructed to place the packet of arsenic in the drawer where he stated it had been, and afterwards Mr. Matthews, the solicitor, demonstrated where he declared he had found it.

An appeal was made to the Court of Criminal Appeal, when Sir Henry Curtis Bennett said that both Mr. Justice Darling and the Attorney-General had ridiculed the statement that Armstrong had made of his method of destroying dandelions. He would produce five witnesses to prove that, far from being incredible, it was not an uncommon custom to

give dandelions arsenic in small doses in the same manner as Armstrong had described, when asked to account for the packet containing three and three-quarter grains that was found in his pocket. The court, however, ruled out any further evidence.

The Lord Chief Justice remarked that a packet containing $3\frac{3}{4}$ grains of white arsenic was a very unusual thing to find in a solicitor's pocket. Counsel observed that arsenic sufficient to kill three thousand persons could be bought for *2s. 6d.*

Sir Henry Curtis Bennett's speech in support of the appeal lasted twelve hours, and in the course of his argument he said: "Mrs. Armstrong went downstairs to get the arsenic; she knew where it was kept, and on February 16 she had gone downstairs and was teaching her little boy." Both packets were in the cupboard in the room in which the boy was being taught. Armstrong stated that in May he went to the cupboard and found the packet in such a condition that it appeared to have been tampered with. He suggested that on the day and in the room where she was with the little boy, she took a fatal dose of arsenic from the cupboard. From the point of view of the defence, he argued, the finding of the arsenic in the bureau was extraordinarily lucky, for there was till then no evidence that Armstrong had any white arsenic at all. The purchase on January 11 was believed to be coloured arsenic, and if this had not been found with the chemist's label, there would have been a stronger case, that in addition to the quarter-pound of coloured arsenic in January, Armstrong, from an unknown source and for an unknown purpose, had got white arsenic as well.

The Lord Chief Justice consulted with his colleagues and said they were unanimously of the opinion that the appeal must be dismissed. Armstrong suffered the extreme penalty of the law and was hanged at Hereford.

CHAPTER XXIII

SOME POISON ASPECTS OF THE ILFORD MURDER CASE

THE mystery surrounding the murder of Percy Thompson at Ilford caused considerable interest in this country towards the end of 1922. On the night of October 3rd, Percy Thompson, a city clerk, when returning from the theatre with his wife, was stabbed to death in a dark street near his home in Endsleigh Gardens, Ilford. His body was found propped up against a wall and by his side in a state of hysteria stood his wife. It was first thought by the doctor who had been called and made a brief examination in the street by the light of a match, that death was due to internal hæmorrhage. It was only when the body was taken to the mortuary that it was discovered that there were twelve or fourteen wounds in the neck and arms, and that the man must have been killed by an assailant armed with a knife or a stiletto. A few days later Frederick Bywaters, a young ships' writer, was arrested and charged with the murder, together with Mrs. Thompson, the widow of the murdered man.

The youth of both—the man was only twenty, and the woman twenty-seven years of age—who had apparently conspired together to carry out the crime, impressed the imagination of the public to an unusual degree. When the case came before the magistrates, the police produced an alleged confession made by Bywaters, according to which he stated he had become deeply attached to Mrs. Thompson, and attacked her husband " because he never acted like a man to his wife."

From a long series of letters which had passed between Bywaters and Mrs. Thompson which were produced in Court, the coroner, after consultation with the Home Office, decided

that the body of Mr. Thompson should be exhumed and a post-mortem examination made. From the contents of the letters it appeared that Mrs. Thompson had for a considerable period, with the connivance of Bywaters, been attempting to put an end to the life of her husband.

These extraordinary letters, which were read in court, contained allusions to several poisons and are noteworthy from a toxicological point of view, as there is mention of the use of powdered glass, which has rarely been employed for criminal purposes in this country.

Bywaters and Mrs. Thompson were brought to trial at the Old Bailey, the man being charged with murdering Percy Thompson and conspiring and agreeing between June 1, 1921, and October 4, 1922, to murder him. Mrs. Thompson was further charged with administering poison to her husband between June 1, 1921, and October 4, 1922, and inciting to murder, also with soliciting and proposing to Bywaters, her fellow prisoner, to murder her husband and agreeing with him to murder her husband.

According to the Solicitor-General, who opened the case for the Crown, although Bywaters' was the hand that struck the blow, Mrs. Thompson's was the mind that conceived the crime, and it was under her controlling influence that Bywaters murdered the man.

The story as revealed at the trial was one of love and passionate hate, recorded in the letters of Mrs. Thompson to her lover, who, strangely enough, had preserved them, and thus stored up indisputable evidence against them both, of their nefarious plot against the life of the unfortunate man.

"He complained that it tasted bitter, as if something had been put into it," is an extract from one letter of Mrs. Thompson to Bywaters.

"I am going to try the glass again occasionally when it is safe. I have an electric light globe this time" is from another.

Again she wrote "I used the light bulb three times; the first time he found a piece, so I have given it up until you come home."

That Bywaters had been aiding her was evidenced in another letter in which she remarks, "I do not think we are failures in other things and we must not be in this. The dose was enough

for an elephant, but you did not allow for the taste making a small quantity to be taken. I was buoyed with the hope of the light bulb and I used a lot of big pieces, but it had no effect." . . . " Would not the stuff make small pills coated with soap, and dipped in liquorice. Try while you are away."

In other letters many suggestions were made by the woman to encompass her husband's death, and in one which is worth noting she alludes to a novel entitled " Bella Donna," and quoted a passage which says " Digitaline is a cumulative poison, harmless if taken once ; frequently repeated, it becomes deadly." She referred constantly in other letters to this book. In another she asks " Have you thought of bichloride of mercury ? "

In a later letter allusion was made to aromatic tincture of opium which she said her husband had in his possession.

In the cross-examination of Bywaters he stated that what Mrs. Thompson alluded to in the letter was simply quinine, and it was that to which she alluded when referring to the dose being enough for an elephant.

Mrs. Thompson, giving evidence on her own behalf, denied ever having any of the poisons mentioned in her possession or using them.

Mr. Webster, analyst to the Home Office, said he had examined the organs from the body of Percy Thompson which was exhumed and found traces of an alkaloid giving a reaction for morphine in the liver and kidneys, but no other poisonous substances whatever.

Counsel recapitulated a remarkable list of the chemical substances that had been mentioned in this case which included hyoscine, cocaine, potassium cyanide, antimony tartrate, bichloride of mercury, digitalin and aromatic tincture of opium, all of which Mr. Webster had defined as poisons. Counsel, when referring to the allusion to ground glass, asked the analyst if he called that destructive and injurious, to which he replied in the affirmative if the powder was in fragmentary form. Administered as such it had been known to cause death. He further added, that ground glass if taken in any quantity might have a serious effect on the linings of the stomach and intestines. He found no evidence of any quantity having been taken in this case.

Aromatic tincture of opium contained morphine and was used as a sedative to relieve pain.

Dr. Spilsbury, who made the post-mortem examination, said he found no signs of poisoning or scars in the intestines. Asked "If glass was administered, would you necessarily expect to find indications of it in the organs?" he replied that he would not, and went on to explain that the administration of broken glass and powdered glass produced different results. Large fragments of glass might produce injury by cutting the wall of the gullet or intestines, and if not fatal, scars might be found afterwards.

Given in powdered form, the immediate effect of powdered glass would be to produce innumerable minute injuries to the delicate membranes of the stomach and would result in illness. If the person recovered, the glass would disappear entirely, with the possible exception of the appendix, where it might lodge and remain for a long time. He found no indication of ground glass in the appendix in this case.

The Solicitor-General asked: "Is the negative result of your examination consistent with glass having been administered?"—Dr. Spilsbury replied: "Some time previously, yes."

"Is it possible that large pieces would have passed through the system without injury to the organs or without leaving any signs behind?"—"It is possible," was the reply.

"Is the negative result of your examination also consistent with powdered glass passing through the system?"—"Yes."

Regarding the poisons, Dr. Spilsbury said he would not expect necessarily to find indication of them if they were administered a considerable time ago. Some poisons left no trace at any time; others produced an effect that might last a few days, or even a few weeks, but after that, there were few poisons which would leave indications, except those that were corrosive or irritant. Hyoscine and cocaine were not irritant poisons. Cyanide of potassium was irritant, but he doubted if it would leave any permanent damage.

Counsel for the prisoner asked: "All that comes to this, that there is no trace whatever, post-mortem, of any glass having been administered?"—"That is so," replied the witness.

The judge, in summing up the case, said the question the jury would have to consider was, was it arranged between Bywaters and Mrs. Thompson that the murder should be committed. "If you think," he continued, "that the letters of this woman are genuine and mean what they say, that would mean that she was inciting the man Bywaters to assist her in poisoning her husband. It might be that they found poisoning was no longer possible, and they might naturally turn their minds to some other means to effect their object. These letters form a very strong case, that the woman was writing to this man, asking him to assist her to remove her husband by the administration of poison. If they are accurate, she administered it, but the important part is that she was plotting and planning."

The jury returned a verdict of "Guilty," and both prisoners were sentenced to death.

This case is noteworthy from the fact that the evidence of attempted poisoning was entirely circumstantial. No one had ever seen Mrs. Thompson in the possession of the poisons mentioned in her letters, with the exception of the aromatic tincture of opium, and there was no evidence to prove that she had ever purchased them or administered them to her husband, beyond that contained in her letters.

From this study of some of the more famous poison trials of the past hundred years, it is clearly demonstrated that the toxicologist and scientific chemist are the most formidable enemies of the criminal poisoner.

It may be safely said, that the days have gone by when a person could administer a poison with intent to kill, without much fear of detection.

In the course of the past century, as science has advanced and new poisonous substances have been discovered, the chemist has been able to find a means of detecting nearly every poison known to science. Even in those cases where the poisoner has been one with skilled knowledge, and had the means of choosing the most subtle weapon of its kind and selected it with the greatest cunning, chemical experts have yet been able to find and reveal the cause of death.

The criminal poisoner, like other murderers, generally

leaves some indelible traces that eventually prove his guilt. Such traces, as instanced in many cases, remain detectable even after the lapse of years. Thus the chance of successfully evading detection is gradually being reduced to a minimum, and as time goes on it is hoped that it will be brought to a practical impossibility.

INDEX

Printed by Butler & Tanner Ltd., Frome.